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Editorial Notes.

Success in Egypt. The statement which was made by the Chairman at this week's meeting of the Egyptian Oil Trust, Ltd., and which is reproduced fully upon other pages of this issue, must be welcome reading to those investors who have pinned their faith to Egypt as an oil-producing country. Although the company only commenced boring operations at the beginning of 1908, two gushers have already been brought in, while in the other two wells, which have now reached a good depth, there are reported to be most promising indications as to success. It is left to very few oil companies to be so fortunate as the Egyptian Oil Trust has been in its initial boring operations, and the result achieved says much for the energy and care with which the boring operations have been conducted under the experienced supervision of Mr. Josh. There is no doubt about it that the production of oil in very large quantities on the shores of the Red Sea will revolutionise the trade in petroleum products with the Eastern markets, and the fact that the Egyptian Oil Trust, by the formation of another and larger company, is to actively proceed with the drilling of other wells upon other concessions, shews that no stone is to be left unturned in order to bring the venture to an unqualified success.

Progress in the Baku Fields. As we have shewn in recent issues of the Review, real progress is being made at the Baku oil fields in regard to the production of crude oil. When the official figures for 1909 are available, it will be seen that the total yield will not be far short of 500,000,000 poods, or about 25,000,000 poods in advance of the figures for 1908. The 40,000,000 pood mark has been passed no less than seven times during the year, the greatest production having been obtained in August, when the total output was over 46,000,000 poods. During 1908 November was the only month when the 40,000,000 pood level was reached. The past year, however, has also witnessed the lowest production during any one month for the last three years, this being last February, a short month of course, when the total figures were only 35,600,000 poods. With the introduction of the Raky system for boring, we expect to see more rapid progress at Baku, and should this be so, then there is every reason for looking forward to an increased yield during 1910. Then again the demands of the Baku refiners for a reduced rate for kerosene from Baku to Batoum, now being considered by a special Government Committee, will, if granted, give an impetus to the export movement, and *inter alia* to boring activity.

Oil Companies as Sound Investments. Just as we go to press we are in receipt of Messrs. Mathieson's "Handbook for Investors for 1910"—a most useful publication, giving, as it does, a concise record of Stock Exchange prices for the past ten years of the principal securities. It is pleasing to note that among this list of industrial securities, several petroleum companies stand out especially attractive. The oil concerns quoted are, for the most part, Scottish corporations, and these shew how remunerative are the concerns operating across the border-land. For instance, there are the ordinary shares of the Pumpherston Oil Co., of which 17s. are paid up. During the past year we learn that the lowest quotations for these £1 shares has been £9 8s., while the highest has been £12 7s. 6d. Then there are the 17s. paid-up ordinary shares of the Broxburn, which have reached 45s. 9d. during the year, while the £1 ordinaries of the Oakbank Co., on which 17s. has been paid-up, have stood at more than double their par value. What a pity the majority of our petroleum companies cannot shew such a good record for Stock Exchange quotations.

The Export of American Petroleum Products. In spite of the fact that all shipments to France have now been cut off by reason of the new tariffs imposed, American exports of petroleum are all round very satisfactory. For instance, according to the statistics for the November shipments, it appears that the figures reached for the corresponding month a year ago were exceeded by more than 29,000,000 gallons—a most creditable record. The total value of the exports for the month were also ahead of those for the corresponding month of 1908, though, of course, not in the same proportion, a fact which shews that though American oil still maintains its hold upon the major portion of the markets of the world, a greater amount of competition has to be met, and consequently lower prices accepted. The official figures for the eleven months' exports shew the total as being 1,374,934,019 gallons of a value of $91,715,167, as against an eleven months' export during 1908 of 1,353,914,466 gallons, valued at $97,147,990.

THE PRODUCTION OF PETROLEUM AT BAKU.

STATISTICS FOR JANUARY-NOVEMBER, 1909.

The production of crude oil at the Baku oil fields during the eleven months—January to November, 1909—is given in the following table, the figures being placed, for the purposes of comparison alongside the statistics for the corresponding months of the two preceding years. It will be noticed that the output at Baku is now being considerably increased, and when the totals for December are published, the increase for the year, as compared with that of 1908 and 1907, should be approximately 25,000,000 poods and 18,000,000 poods respectively. The figures are (in poods):—

	1909.	1908.	1907.
January	36,200,000	39,700,000	38,500,000
February	35,600,000	36,500,000	37,700,000
March	41,000,000	39,600,000	40,900,000
April	39,600,000	38,700,000	39,100,000
May	40,400,000	39,900,000	39,500,000
June	40,700,000	37,800,000	40,000,000
July	45,800,000	39.500,000	42,000,000
August	46,600,000	39,600,000	40,200,000
September ..	43,600,000	37,300,000	37,900,000
October.. ..	41,900,000	40,400,000	40.000,000
November ..	39,800,000	38,800,000	39,100,000
Total for the eleven months	449,400,000	427,800,000	434,900,000

The increase in the production for the eleven months of the year just closed has been solely due to the productivity of the Bebe-Aibat region, as the following figures will shew:—

	1909.	1908.	1907.
Bebe-Aibat (for the eleven months) ..	167,400,000	110,400,000	119,100,000
Other fields in the Baku district ..	282,000,000	317,400,000	315,800,000

The boring activity in the various fields for the eleven months is seen from the following table, the depths being given in sagenes (1 sagene equals 7 feet).—

	1909.	1908.	1907.
Balakhany	5,632	5,682	6,587
Saboontchi	18,058	20,210	18,903
Ramany	7,287	7,394	7,617
Bebe-Aibat	7,816	10,743	13,081

During the past year the most prolific production was obtained from spouters in August, when their output was 6,400,000 poods, while the following month it was 4,900,000 poods. The spouter production for the first nine months of 1909 was 18,800,000 poods, as against 7,500,000 poods for the corresponding period of 1908 and 9,400,000 poods for the nine months of 1907.

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AMERICAN PARAFFIN WAX EXPORTS.

The exports of paraffin wax from America during October are given in the following table, the figures for the corresponding month of 1908 being placed alongside those for 1909. The quantities are given in pounds:—

Exported to—	1909.	1908.
United Kingdom	9,115,529	8,751,317
Belgium	734,773	15,748
France	13,129	28 903
Germany	223,211	176,553
Italy	1,349,749	600,368
Netherlands	389,324	249,135
Other European Countries.. ..	437,149	435,125
Central American States and British Honduras	133,753	164,107
Mexico	710,420	1,012,491
South America	24,431	36,255
Japan	973,413	—
British Australasia	403,212	262,279
Other Asia and Oceanica	135.099	543,713
British Africa	245,111	242,283
All Other African Countries ..	904,903	597,424
Other Countries	30,276	28,499

THE ADOPTION OF THE RAKY SYSTEM IN THE RUSSIAN OIL FIELDS.

The Raky system of boring, which has been so successfully applied in Germany, Roumania and Kertch, has now made its advent in the Russian fields, the well-known firm of Mantascheff having adopted it upon its Saboontchi properties. There has in the past been great prejudice against the system in Baku, and in fact only a few years ago an agitation was initiated to prohibit the use of boring by means of water systems. There is no doubt that now the system is being given a trial, great progress will be made with boring operations in the Baku fields. As illustrating this, it may be mentioned that in one month ending the 14th December, the Raky system bored nearly 400 feet in the well upon which it is being tried. The results of the trial are being very closely watched.

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THE TIN PLATE MARKET.

Messrs. Norton, Owen & Co., of 4, Bishopsgate Street Within, London, E.C., report under date December 30th, 1909, as follows:—

Tin has further advanced, the demand for tin plates is steady, and the works being well booked the outlook for the new year is very satisfactory, from the makers' point of view.

Prices of oil sizes are firm as under:—

IC	18¾ × 14	124 sheets	110 lbs.	13/1½ to 13/3 per box.
IC	19¼ × 14	120 ,,	110 ,,	13/1½ to 13/3 ,,
IC	20 × 10	225 ,,	156 ,,	18/3 to 18/4½ ,,

F.o.b. Wales. Tin lining and iron hooping extra.

◆

BAKU PRODUCTION DURING NOVEMBER.

The total production of crude oil in the Baku fields during November amounted to 39,789,656 poods. The production at Bebe-Aibat amounted to 9,612,028 poods, and that on the old areas to 30,177,628 poods. The following is the production of the leading firms during the month:—

	Poods.
Nobel Bros.	5,266,942
Moscow-Caucasian Co.	846,000
Caspian and Black Sea Society	3,150,172
Mantascheff and Co.	2,279,208
Baku Petroleum Co.	2,093,584
Caspian Society..	1,884,600
Zoubaloff	1,404,000
Mirzoeff Bros.	1,461,500
Roono	1,043,550
Russian Petroleum and Liquid Fuel Co., Ltd.	588,414
Aramazd Co.	1,048,200
Pitoeff and Co.	1,100,500
Kavkaz Co.	786,147
Nagieff	822,609
Bibi-Eybat Petroleum Co., Ltd.	813,000
Russian Society Neft	782,000
A. S. Melikoff and Co.	608,500
Baku Russian Petroleum Co., Ltd.	622,900
European Petroleum Co., Ltd.	532,100
T. M. Schibaieff Co.	509,750

TEMPORARY ADDRESS.

J. C. GOODALL,
24, Forest Road,
Kew Gardens, S.W.

Late Manager, London Branch, Homelight Oil Co., Ltd.

P.O. Tel. 1272 Richmond.

The Petroleum Trade of England during 1909.

A BRIEF RETROSPECT.

Exactly a year ago, in making a brief retrospect of the petroleum trade of the United Kingdom during 1908, we emphasised the fact that during those twelve months it had witnessed a significant expansion. What was true twelve months ago is equally true of the year 1909, for the expansion witnessed during 1908 became all the more pronounced during the year which closed yesterday. But in some respects, the two years differ most materially. It will be remembered that through 1908 there was an almost continual period of abnormal prices in connection with the bulk carrying trade; during 1909 the freights fell off to such an extent that few there are who will argue that the shipping branch of the petroleum trade was carried on at a profit. As a matter of fact, prices fell to such a low figure that many owners found it advisable to lay up their oil tankers rather than put them on charter at prices which were unremunerative.

One pleasing feature which we noted in connection with this country's petroleum trade during 1908 was that in the various petroleum products it was constantly on the increase. Although in some directions this increase has shewn itself very conspicuously during the year just closed, when our total petroleum import trade is taken into consideration, it will be seen that the two years ranked very close to each other, for the total imports were almost a set-off one against the other. In 1908 we imported petroleum products to the extent of 333,671,295 gallons, and this last year we may take the figures as approximately 334,000,000 gallons.

The liquid fuel branch of our country's trade is making slow yet, we believe, permanent progress. The attitude of the British Admiralty in regard to liquid fuel is well known, and from what we see around us, it would appear that in other directions the foundations are being laid for a fairly large trade in the future. One of our large petroleum distributing concerns—the British Petroleum Co.—is going largely into this particular branch of the business, and the fact that it is extending many of its bulk storage depôts in order to cope with this new business shews that an increasing trade in liquid fuel is anticipated. For the past year, our fuel imports have come exclusively from America, and altogether reach nearly 10,000,000 gallons. This is a figure somewhat in excess of that reached during 1908, when though the supply mainly was drawn from the United States, one or two small parcels came from other producing countries, while in the case of Roumania one cargo came over.

An analysis of the various classified products reveals the fact that the illuminating oil trade of this country is making little or no progress. On the contrary, it may be contended that it is a decreasing quantity, and if the figures are quoted for this assertion, the argument may be substantiated. Large stocks of illuminating oil are, however, generally held in this country, and, therefore, to take just one year's figures of imports, and from these draw comparisons as to the progress, or otherwise, which is being made in illuminating oil in the United Kingdom, one may easily be led astray. From the figures for 1909, however, it would appear that some slight ground is being lost, and illuminating oil does not to-day find that large circle of consumers it found a few years ago. For instance, we may take it that for 1909 we imported approximately 143,000,000 gallons, whereas, for the preceding twelve months the totals were 170,000,000 gallons. Comparing the figures of 1909, however, with those of 1907, we see that they are practically the same, a fact which almost forces one to the conclusion that to-day illuminating oil almost enjoys the same extended use it did formerly. We are, of course, not unmindful of the fact that the consumption of illuminating oil for lighting purposes is decreasing, while by the adoption of more economical systems of oil lighting, either by vapourising the oil, or burning it under incandescent flame, the consumption is still further curtailed. But of late in other directions, illuminating oil finds useful application especially as power for internal combustion engines, and it is quite likely that in the near future, now that great efforts are being made to perfect paraffin carburettors, kerosene will find a steadily widening field for consumption in this direction.

In regard to the countries supplying illuminating oil to the English markets, the statistics shew to what an extent we are indebted to the United States. With the exception of about 33,000,000 gallons, the whole of our supply has come from the American fields, for our imports for last year, both from Russia and Roumania, were behind those for the preceding twelve months.

Our trade in benzine now forms, from the point of volume, the second most important of all petroleum products. In this direction, the recent progress has been little less than remarkable. From year to year our benzine imports continue to increase, and for 1909 we imported somewhere about 53,000,000 gallons, or about 50 per cent. more than in 1908. There were many who predicted that the recently-imposed tax of 3d. per gallon upon motor spirit would seriously affect the consumption, but, so far, statistics do not corroborate this; in fact, for the last few months of the year our motor spirit imports increased even in greater ratio than those for the first half of 1909, when there was no tax upon the spirit. The chief feature in regard to these imports is the sudden rise of America as a benzine exporting country. Our readers will recollect that five or six years ago the whole of our motor spirit came from the Pennsylvanian fields, but about that time a dearth of supply of oil capable of yielding large percentages of light fractions caused a considerable falling off of the exports of benzine from America. This went on until in 1908 we imported from that country only 6,000,000 gallons, as compared with 21,000,000 from the Far East. Now, however, America has again come forward, and for the past twelve months we find that of the 53,000,000 gallons of benzine imported into the United Kingdom, no less than 14,000,000 gallons came from America and 27,000,000 gallons from the Far East. Thus the United States is again claiming a considerable portion of the trade which, for a few years past, has been lost to it. Our consumption of Russian spirit has fallen considerably during the past twelve months, for whereas in 1908 we imported 4,300,000 gallons, in 1909 the total figures fell to 1,700,000 gallons.

So far as lubricating oil is concerned, the figures for 1909 are practically a set off with those for both 1908 and 1907—approximately 49,000,000 gallons. As in the case of 1908, so last year with the exception of about 6,000,000 gallons imported from Russia, the whole of the lubricating oil was of American origin.

The imports of solar oil have, during the past year, made considerable headway, the total quantity imported having been over 74,000,000 gallons, as compared with a total quantity of 54,000,000 gallons imported during 1908. America is now supplying even more solar oil than has been the case in previous years, the increase between 1908 and 1909 having been approximately 17,000,000 gallons. Roumania, on the other hand, has considerably decreased her exports of solar oil to this country, for while in 1908 she exported to this country over 10,000,000 gallons, her figures for the year just closed were only 3,600,000 gallons.

With regard to the prices realised upon the English market during 1909, there has been a steady and continuous decrease, both American and Russian oil having dropped during the year one penny per gallon. Roumanian oil, however, though only coming to this country in small parcels, still remains at its former price, it having experienced little or no movement during the twelve months. The English market has experienced keener competition during the year, and this to some extent accounts for diminished prices — likewise diminished profits.

THE IMPORTS OF PETROLEUM PRODUCTS INTO GERMANY DURING SEPTEMBER.

The imports of petroleum products into Germany during September, 1909, were as under (in tons): —

From	Illuminating Oil	Lubricating Oil	Benzine	Crude Solar and Resid.
Russia ..	1,283	10,622	—	—
United States	46,130	10,337	—	1,530
Austria ..	1,609	3,328	810	2,807
Roumania ..	6,122	—	1,608	—
Dutch Indies	—	—	5,427	509
Other Countries	13	130	1,603	101
Total ..	55,358	26,460	9,448	4,871

The imports during January to September, 1909, were as under (in tons): —

From	Illuminating Oil	Lubricating Oil	Benzine	Crude Solar and Resid.
Russia ..	26,238	69,274	20,909	69
United States	493,603	72,100	—	23,469
Austria ..	53,956	29,525	9,430	21,940
Roumania ..	20,658	—	8,495	—
Dutch Indies	—	—	56,100	5,408
Other Countries	159	1,867	24,565	722
Total ..	594,636	196,566	109,842	49,600
January to June 1908	581,481	182,690	92,682	52,888

DEATH OF MR. FRANK DRADER.

It is with the deepest regret—regret which will be shared by a very large circle of friends—that we have to announce the decease of Mr. Frank Drader. The sad event took place on board the ss. "Nigeria" while at sea, the body being buried on the 16th December. Mr. Drader was at the time on his way to England, intending to spend the Christmas with his wife and family at Tunbridge Wells.

Mr. Drader, who was one of the school of Canadian oil men, left Canada about twenty years ago to seek his fortune in the oil fields of the world. He took up residence in Galicia, where he accepted a responsible position under Mr. W. H. MacGarvey. In the Galician oil fields Mr. Drader found a host of friends, and it was largely owing to the tact which he displayed in his several managerial positions that made the Galizische Karpathen Petroleum Actien Gesellschaft so popular throughout Austria.

Mr. MacGarvey recognised in Mr. Drader a most valuable and willing servant, and, when, only a few years ago, the Nigeria Bitumen Corporation was formed, Mr. Bergheim (Mr. MacGarvey's partner) appointed Mr. Drader as manager of the corporation's properties in Nigeria—a position which he held with marked ability at the time of his decease.

THE LATE MR. FRANK DRADER. [Photo by "[illegible]."

Mr. Drader paid several visits to London, and on these occasions he never failed to spend a few hours at the REVIEW offices, where he would chat over his many experiences in oil-field operations.

He was a splendid type of man—one that the petroleum industry can ill-afford to lose, and his kindness of heart was at all times a most prominent trait in his character.

Cut down as Mr. Drader was in the prime of life, his untimely decease will come as a great blow to that large circle of oil men who can claim the pleasure of his friendship. We would tender Mrs. Drader and family our condolences in the great trouble which has overtaken them just at a time when they were anticipating a happy Christmas gathering.

THE MAIKOP OIL FIELDS.

Exclusive Views of Russia's New Petroliferous Regions..

AMERICA'S CASE OIL EXPORT TRADE.

OFFICIAL STATISTICS FOR THE FIRST HALF OF 1909.

America's case oil export trade statistics for the first half of 1909 will be found in the following table. It will be noticed that in regard to illuminating oil the first half of 1909 witnessed a great decrease in the number of cases exported; but in regard to the exports of benzine, a slight increase is to be noted. The figures are as under:—

ILLUMINATING OIL.

	1909. Cases.	1908. Cases.
British Isles	—	[illegible]
France	—	[illegible]
Germany	—	[illegible]
Finland	—	—
Belgium	—	[illegible]
Norway	—	—
Sweden	—	[illegible]
Denmark	—	—
Iceland	—	—
Spain and Portugal	[illegible]	—
Malta	—	—
Italy	[illegible]	—
Austria-Hungary	—	—
Greece	[illegible]	[illegible]
Turkey	—	[illegible]
Africa, including neighbouring islands, but excluding North Africa, Egypt and Zanzibar ...	[illegible]	[illegible]
Africa, North	—	[illegible]
Egypt	[illegible]	[illegible]
Java, Padang, Macassar, Moluccas, Banjermasin and Palembang ...	[illegible]	[illegible]
Straits, Rangoon, Philippines, Saigon, Bangkok, Mauritius and Vladivostock	[illegible]	[illegible]
India, including Aden, Persian Gulf and Colombo	[illegible]	[illegible]
China	[illegible]	[illegible]
Japan	[illegible]	[illegible]
Russia	—	[illegible]
Canada	[illegible]	[illegible]
West Indies and Central America ...	[illegible]	[illegible]
South America	[illegible]	[illegible]
Australia and New Zealand	[illegible]	[illegible]
Pacific Islands	[illegible]	[illegible]
Eastern Ports	—	—
Total	[illegible]	[illegible]

BENZINE.

	1909. Cases.	1908. Cases.
British Isles	—	
France	—	—
Germany	—	—
Holland	—	—
Belgium	—	—
Sweden	[illegible]	[illegible]
Spain and Portugal	[illegible]	[illegible]
Italy	[illegible]	[illegible]
Africa, including neighbouring islands, but excluding North Africa, Egypt and Zanzibar ...	[illegible]	[illegible]
Africa, North	[illegible]	[illegible]
Russia	—	[illegible]
Canada	[illegible]	[illegible]
West Indies and Central America ...	[illegible]	[illegible]
South America	[illegible]	[illegible]
Australia and New Zealand	[illegible]	[illegible]
Pacific Islands	[illegible]	[illegible]
Eastern Ports	[illegible]	[illegible]
Total	[illegible]	[illegible]

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Californian Oil in Storage.—It is reported that at the close of November there were [illegible] barrels of crude oil in storage in the Californian fields.

THE NIGERIA INVESTMENT COMPANY, LIMITED.

ENCOURAGING PETROLEUM ENTERPRISES.

The annual general meeting of the Nigeria Investment Co., Ltd., was held on Wednesday, at Winchester House, Old Broad Street, London, E.C.—Mr. Oswald Nettlefold (the chairman) presiding.

The Chairman, in moving the adoption of the report and accounts, said that the latter shewed a profit of £[illegible] 3s. 2d., which profit they considered advisable should be carried forward, though they had every hope of being able to make a substantial distribution of profits during the coming year. Turning to the balance sheet, he pointed out that the 100,000 shares of the British Colonial Petroleum Corporation were included therein at an exceedingly low figure, in fact, at a few thousand pounds only. With reference to that corporation, they would be interested to learn that it had been offered and had accepted a license over an area of 100 square miles between the Benin and Escravos rivers, on the coast of Southern Nigeria, which property they believed was the pick of the basket of the oil lands in that colony. As their company was responsible for the creation of the British Colonial Petroleum Corporation, they were negotiating with a view to provide, in certain circumstances and on mutually advantageous conditions, further moneys for the corporation in the event of such being necessary.

To turn to the new business which they had in hand, they had exercised the option they acquired over oil lands in the provinces of Seville and Cadiz, Spain. They had formed a company to take over and work those properties, called the Andalucian Oilfields, Ltd., and having a capital of £[illegible], one-third of which was reserved for working capital, went to the Spanish vendors, and the remainder to their company. As mentioned in the report, Mr. Hamilton Lloyd and Dr. Stephan had both visited those properties, which cover some [illegible] hectares, and their reports were most encouraging.

He thought they might look with confidence to the development of those as likely to prove a source of great profit to their company. The owner of those properties—Major Case, of Seville—sank a well on [illegible] to the shallow depth of 100 feet, and actually got petroleum, but not in payable quantities. The import duty on refined oil into Spain was £13 per ton; the selling price of refined oil at a Californian port was about 30s. per ton; so they could imagine what an asset an oil field would be in Spain. In Canada they had purchased the oil and gas rights over a property of 100 acres in the heart of the Tilbury oil field, the major portion of the purchase price for that property being contingent on the striking of oil to the extent of 50 barrels per day for ten consecutive days in the first well sunk. Boring operations had been proceeding there since the beginning of the month, and during next month they hoped to have a good result.

Mr. W. Dunn seconded the resolution, which was carried, and a vote of thanks to the Chairman closed the meeting.

WEEKLY PRICES OF AMERICAN AND RUSSIAN PETROLEUM IN THE RESPECTIVE COUNTRIES DURING THE YEAR 1909.

		AMERICAN.					
		Crude. (dollars per barrel.)			Refined in New York. (cents per gallon.)		
Week ending		Penn.	N. Lima	S. Lima.	Bulk.	Cases.	Barrels.
January	2	1·78	1·04	0·99	5·00	10·90	8·50
	9	1·78	1·04	0·99	5·00	10·90	8·50
	16	1·78	1·04	0·99	5·00	10·90	8·50
	23	1·78	1·04	0·99	5·00	10·90	8·50
	30	1·78	1·04	0·99	5·00	10·90	8·50
February	6	1·78	1·04	0·99	5·00	10·90	8·50
	13	1·78	1·04	0·99	5·00	10·90	8·50
	20	1·78	1·04	0·99	5·00	10·90	8·50
	27	1·78	1·04	0·99	5·00	10·90	8·50
March	6	1·78	1·04	0·99	5·00	10·90	8·50
	13	1·78	1·04	0·99	5·00	10·90	8·50
	20	1·78	1·04	0·99	5·00	10·90	8·50
	27	1·78	1·04	0·99	5·00	10·90	8·50
April	3	1·78	1·04	0·99	5·00	10·90	8·50
	10	1·78	1·04	0·99	5·00	10·90	8·50
	17	1·78	1·04	0·99	5·00	10·90	8·50
	24	1·78	1·04	0·99	5·00	10·90	8·50
May	8	1·73	0·99	0·94	5·00	10·90	8·50
	15	1·68	0·94	0·89	5·00	10·90	8·50
	22	1·68	0·94	0·89	5·00	10·90	8·50
	29	1·68	0·94	0·89	5·00	10·90	8·50
June	5	1·68	0·94	0·89	5·00	10·90	8·50
	12	1·68	0·94	0·89	5·00	10·90	8·50
	19	1·68	0·94	0·89	5·00	10·90	8·50
	26	1·63	0·89	0·84	4·90	10·80	8·40
July	3	1·63	0·89	0·84	4·90	10·80	8·40
	10	1·63	0·89	0·84	4·90	10·80	8·40
	17	1·58	0·86	0·81	4·75	10·65	8·25
	24	1·58	0·86	0·81	4·75	10·65	8·25
	31	1·58	0·86	0·81	4·75	10·65	8·25
August	7	1·58	0·86	0·81	4·75	10·65	8·25
	15	1·58	0·86	0·81	4·75	10·65	8·25
	22	1·58	0·86	0·81	4·75	10·65	8·25
	29	1·58	0·86	0·81	4·75	10·65	8·25
Sept	5	1·58	0·86	0·81	4·75	10·65	8·25
	12	1·58	0·86	0·81	4·75	10·65	8·25
	19	1·58	0·86	0·81	4·75	10·65	8·25
	26	1·58	0·86	0·81	4·75	10·65	8·25
Oct	3	1·58	0·86	0·81	4·75	10·65	8·25
	10	1·58	0·86	0·81	4·75	10·65	8·25
	17	1·58	0·86	0·81	4·75	10·65	8·25
	24	1·53	0·84	0·79	4·65	10·55	8·15
	31	1·53	0·84	0·79	4·65	10·55	8·15
Nov	7	1·48	0·84	0·79	4·55	10·45	8·05
	14	1·48	0·84	0·79	4·55	10·45	8·05
	21	1·48	0·84	0·79	4·55	10·45	8·05
	28	1·48	0·84	0·79	4·55	10·45	8·05
Dec	5	1·48	0·84	0·79	4·55	10·45	8·05
	12	1·48	0·84	0·79	4·55	10·45	8·05
	19	1·48	0·84	0·79	4·55	10·45	8·05
	26	1·48	0·84	0·79	4·55	10·45	8·05

		RUSSIAN.			
		Refined.			
		For Export.	For Inland.	Crude.	Residuals.
		Copecks per Pood.			
January	4	25¼	—	19	19¾
	11	25¼	—	19	19¾
	18	25¼	25½ 25¾	19	21
	25	25¼	25½ 25¾	19	21
February	1	25¼	25½ 25¾	19	21
	8	26¾	25	20½	20¾
	15	26¾	28	20½	20¾
	22	26¾	27½	21¼	20¾
March	1	26¾	27½	21¼	20¾
	8	28	31	21¾ 22	21¼
	15	28¼	31¼	21¾ 22	21¼
	22	29	32	22½ 22¾	22½
	29	29	32	22½ 22¾	22½
April	4	28	31	22	22½
	11	28	31	22	22½
	18	28	31	22	22½
	25	28	31	22	22½
May	2	27¼	29½-30	22	22
	9	27¼	29½ 30	22	22
	16	27	29½	22	22¼
	23	27	29½	22	22¼
	30	27	29½	22	22¼
June	6	27	29½-30	22	22¼
	13	27	29½-30	22	22¼
	20	27	29½-30	22	22¼
	27	27	29½-30	22	22¼
July	4	27	29½ 30	22	22¼
	11	27	29½ 30	22	22¼
	18	27	29½ 30	22	22¼
	25	27½	28½ 29¾	22-22½	22¼
August	1	27½	28½ 29¾	22 22½	22¼
	8	27¾	29¾	23¼-23½	22¾ 23
	15	27¾	29¾	23¼-23½	22¾ 23
	22	27¾	29¾	23¼ 23½	22¾-23
	29	27¾	29¾	23¼-23½	22¾-23
Sept.	5	27¾	29¾	23¼ 23½	22¾-23
	12	27¾	29¾	23¼-23½	22¾ 23
	19	27¾	29¾	23¼-23½	22¾ 23
	26	27¾	29¾	23¼ 23½	22¾-23
October	3	27¾	29¾	23¼-23½	22¾-23
	10	27¾	29¾	23¼ 23½	22¾-23
	17	27¾	29¾	23¼-23½	21
	23	27¾	29¾	23¼-23½	22¼
	30	27¾	29½	21 21¼	22
Nov.	6	27¾	29½	20½-21¾	20¾
	13	26¾	29½	19½ 20½	20¾
	20	26¾	29½	19½-20½	20¾
	27	26¾	29½	19½-20½	20¾
December	4	26¾	29½	19½-20½	20¾
	11	26¾	29½	19½-20½	20¾
	18	24	29½	19	20¾
	25	24	29½	19	20¾

PRICES OF AMERICAN, RUSSIAN AND ROUMANIAN REFINED OIL ON THE LONDON MARKET DURING THE YEAR 1909.

			AMERICAN.	RUSSIAN.	ROUMANIAN.
January	1	..	7 7¼	6½ 6¾	–
	8	..	7 7¼	6½ 6¾	7
	15	..	7 7¼	6½ 6¾	–
	22	..	7 7¼	6¼ 6½	–
	29	..	7 7¼	6¼-6½	–
February	5	..	7 7¼	6¼-6½	–
	12	..	6¾	6	–
	19	..	6¾	6¼	–
	26	..	6¾	6¼	–
March	5	..	6¾	6¼	–
	12	..	6¾	6¼	–
	19	..	6¾	6¼	7
	26	..	6¾	6¼	–
April	2	..	6¾	6¼	–
	9	..	6¾	6¼	7
	16	..	6¾	6¼	–
	23	..	6¾	6¼	–
	30	..	6¾	6¼	7
May	7	..	6¾	6¼	–
	14	..	6¼ 6¾	6 -6¼	–
	21		6¼-6¾	6 -6¼	7
	28	..	6¼ 6¾	6 -6¼	–
June	4	..	6¼ 6¾	6 -6¼	–
	11	..	6¼ 6¾	6 -6¼	7
	18	..	6 -6¼	6 -6¼	–
	26	..	5 6¾	6 6¼	6¾
July	2	..	6¼ 6¼	5⅞-6⅛	7
	9	..	6⅛-6¼	5⅞-6⅛	7
	16	..	6 6¼	5½ 5¾	7
	23	..	6 -6¼	5½-5¾	7
	30	..	6 6¼	5½-5¾	7
August	6	..	6 6¼	5¾	7
	13	..	6 -6¼	5¾	7
	20	..	6 -6¼	5¾	7
	27	..	6 6¼	5¾	7
Sept.	3	..	6 6¼	5¾	7
	10	..	6 -6¼	5¾	7
	17	..	6 -6¼	5¾	7
	23	..	6 -6¼	5¾	7
	30	..	6 6¼	5¾	7
October	7	..	6 6¼	5¾	7
	14	.	6 6¼	5¾	–
	21	..	6 -6¼	5¾	–
	28	..	6 -6¼	5¾	7
Nov	4	..	6 -6¼	5¾	7
	11	..	6 6¼	5¾	–
	18	..	6 -6¼	5¾	7
	25	..	6 -6¼	5¾	7
Dec.	2	..	6 6¼	5¾	7
	9	..	6 6¼	5¾	7
	16	..	6 -6¼	5¾	7
	23	..	6 6¼	5¾	7
	30	..	6 -6¼	5¾	7

THE USE OF MINERAL OIL FOR IMPREGNATING WOOD.

Mr. Johann Polifka, Chief Inspector of the Royal Hungarian Railways, and Mr. Bertalan Hacker, director, both in Budapest, Nádor-utcza 14, Hungary, have received an English patent for an invention relating to preserving wood by the use of mineral oil.

According to the invention, the wood to be treated is placed in an air-tight bath of boiling oil under a vacuum, then after running off excess oil, the wood is again subjected to a vacuum, so that the pores may be opened and the warm air withdrawn, so that cracking and warping of the wood may be avoided. The impregnating medium is then forced into the wood, and finally after running off the excess of impregnating material, the wood is for a third time placed under a vacuum in order to recover any excess of impregnating material that may be present in the wood. Soft wood, such as for instance beech wood, absorbs excessive quantities of impregnating substance, and in order to make impregnation economical, it is advisable that the oil be recovered in the above-mentioned manner.

When the impregnating medium is forced in cold, an excess of oil always gets into the wood, and some of it trickles out from the wood shortly after the impregnating operation is concluded, while some emerges later, so that a certain portion of the oil is lost without having taken a useful part in the impregnation.

The disadvantage is obviated, however, by the process according to this invention, in which the impregnating medium is forced into the pores of the wood in a heated state, and after the impregnation, the wood is exposed to the action of the vacuum, so that the excess of oil is driven out on the one hand, by the air contained in the pores of the wood, and on the other hand, by the steam generated in the wood.

A modification of the process enables the impregnating operation to be carried out in a still more complete and advantageous manner. According to the modification, instead of simply forcing the impregnating substance into the wood after the second production of vacuum, the said substance can be caused to circulate through the impregnating boiler. This circulation is continued until the wood has become saturated with the impregnating substance, and the latter is always heated each time it leaves the boiler in order that it should always be at the most suitable temperature for impregnating—that is to say, between 100-130° C.

This modification of the process is mostly used for hard wood, where the absorption of the impregnating substance does not take place quite so easily.

Finally, in this modification, as in the original process, a vacuum is again produced in the boiler in order to withdraw excess impregnating material from the wood, and for completely extracting the water.

The introduction and withdrawing of the circulating impregnating substance take place at opposite ends of the impregnating vessel, and are effected by means of a suction and forcing pump, whilst separate devices are provided for heating the impregnating substance.

The process, according to this invention, gives improved facilities for impregnating damp wood, as during the boiling in the oil bath under a vacuum and the subsequent action of a vacuum, the wood is completely freed from its contents of moisture without any cracks or shakes being produced.

The advantage of the present process, in addition to the recovery of the excess of impregnating medium, consists in an exceedingly efficient drying of the wood being ensured during the pressure period in which the forcing of the impregnating medium through the wood is carried out, so that the drying process, namely, the soaking in the hot oil bath, can be reduced by about two hours. Of that gain of time, one hour is utilised for treating the wood in a vacuum for the purpose of recovering the excess of impregnating medium and for the complete extraction of any moisture that may be still left in the wood. The whole process becomes therefore more perfect and economical, without the time required for carrying it out being increased.

As an impregnating substance, a mixture consisting of a tar oil containing antiseptic substances, and of a heavy mineral oil distillate, or such having a high boiling point, called in the trade "blue oil," is used. It has been found that a wood tar oil containing 40 to 70 per cent. creosote or a coal tar oil containing carbolic acid, are also suitable.

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AMERICAN EXPORTS FOR NOVEMBER.

OFFICIAL STATISTICS.

According to the official publication of the Washington Bureau cf Statistics, the exports of petroleum from America from the various ports during November were as under:—

	1909. Quantities. Gallons.	1908. Quantities. Gallons.
Crude—		
Baltimore	—	—
Boston and Charlestown	—	—
New York	1,777,034	1,263,547
Philadelphia	373,000	1,693,792
Galveston and Sabine	6,702,825	2,391,096
San Francisco	6,175,500	1,638,000
Totals	15,028,359	6,986,435
Total value for the month, 1908		$284,861
,, ,, ,, 1909		$431,025
Naphthas—		
Baltimore	—	1,000
Boston and Charlestown	6,900	200
New York	2,063,390	807,111
Philadelphia	726,546	1,334,224
Galveston and Sabine	—	—
San Francisco	22,298	21,625
Totals	2,819,134	2,164,160
Total value for the month, 1908		$245.693
,, ,, ,, 1909		$262,597
Illuminating—		
Baltimore	—	735,204
Boston and Charlestown	13,030	2,835
New York	60,211,245	32,324,931
Philadelphia	23,783,517	29,886,402
Galveston and Sabine	3,191,280	4,311,752
San Francisco	28,036	5 556,048
Totals	87,235,108	72,817,172
Total value for the month, 1908		$4,775,943
,, ,, ,, 1909		$5,481,002
Lubricating—		
Baltimore	368,450	432,300
Boston and Charlestown	19,943	11,391
New York	9,549,379	6,405,615
Philadelphia	4,666,341	6,613,453
Galveston and Sabine	608,274	4,918
San Francisco	41,533	51,885
Totals	15,253,920	13,519,562
Total value for the month, 1908		$1,655,926
,, ,, ,, 1909		$1,840,017
Residuum—		
Baltimore	—	455,368
Boston and Charlestown	—	243,710
New York	25,923	1,500
Philadelphia	4,444,089	2,198,490
Galveston and Sabine	2,967,254	18,480
San Francisco	23,745	17,386
Totals	7,461,011	2,934,934
Total value for the month, 1908		$105,674
,, ,, ,, 1909		$255,707
Total Mineral Oils—		
Baltimore	368,450	1,623,872
Boston and Charlestown	39,873	258,136
New York	73,629,971	40,802,704
Philadelphia	33,998,493	41,726,361
Galveston and Sabine	13,469,633	6,726,246
San Francisco	6,291,112	7,284,944
Totals	127,797,532	98,422,263
Total value for the month, 1908		$7,068,097
,, ,, ,, 1909		$8,270,348

NEW ZEALAND DEVELOPMENTS.

AN Excellent Opportunity is afforded to secure several thousand acres of land for the purpose of Petroleum Developments. The territory is the most favourable in the Gisborne district. Write fully to "New Zealander," c/o "Petroleum Review," 45, St. Mary Axe, E.C.

AMERICAN NOTES.

The Producers' Oil Company.—The Producers' Oil Co. of Texas has decided to double its capital stock.

Prices Still Fall.—The last few days of the year saw another cut at the crude oil prices in Pennsylvania, which crude now stands at $1·43 as against $1·78 twelve months ago.

Oil Company Dividends.—The dividends paid during November by the oil companies listed on the Californian Exchange amounted to $613,349, the total amounts paid up to date being $26,704,036.

The Value of Californian Oil.—Taking the average price of Californian oil at 60 cents per barrel, it is said that the year's production of the Californian fields will have brought to the producers a sum of $34,178,160.

A New Petroleum Company.—The latest concern to receive a charter of incorporation is that capitalised at $450,000, and to be known as the Petroleum Products Co. It has been registered in Delaware.

Abandoned Wells.—Since the end of June, 1905, no less than 7,416 wells have been abandoned in the Indiana oil fields, while for a similar period, 5,278 wells have been added to the dead list in the regions of north-western Ohio.

Important Sales.—The Texas property of the Waters Pierce Oil Co. has been sold at public auction to some St. Louis capitalists for $1,431,741. The property of the Security Oil Co. was bought by a Mr. Sealy, of Galveston, for $85,000.

Taking Care of Coalinga's Production.—When the new pipe lines are constructed to connect the Coalinga field with the seaboard, it will be possible by pipe line to remove 90,000 barrels per day, a figure at present far ahead of production.

Another West Virginian Gusher.—One of the largest gushers ever associated with the West Virginian fields has lately been brought in on property in the Shinnston Pool of Harrison county. During the first 24 hours the well gave out 1,700 barrel of crude.

A Good Louisiana Well.—One of the best wells ever brought in in the Louisiana field is that owned by the Producers' Co.—their well No. 84. The well is reported to be flowing at 2,000 barrels daily, and is said to be giving a new impetus to development in that State.

Good Oil Territory Prices.—In a large deal in Californian oil lands which has recently been made public, it appears that the price paid for the land works out at $2,000 per acre. For the territory purchased even at this good sum offers have been received for as much as $3,500 per acre.

Tin Plates for Case Oil.—Significant evidence of the growth of the Texas Co.'s over-seas trade in petroleum products is forthcoming by the receipt at the company's refinery at Port Arthur of 12,000,000 pounds of tin plates brought from Antwerp for the purpose of making cases for export petroleum The import duty upon that cargo of tin plates was over $14,000.

A Mammoth Oil Burning Locomotive.—The largest locomotive ever built for passenger service has recently been turned out of the Baldwin shops at Philadelphia. The engine and tender measure 105 feet over all, and weigh nearly 300 tons, the tank holds 1,200 gallons of water and 4,000 gallons of petroleum, the engine being an oil burner. The engine has a tractive power of 53,000 tons.

The Pipe Line Report.—The November pipe line report shews that the total receipts for the month were 2,752,000 barrels, as against 2,750,000 barrels for October. The November receipts are the highest for the year. The deliveries totalled 5,555,088 barrels, as against 5,729,781 barrels for October. At the close of the month the stocks of oil in charge of the various pipe line companies amounted to 17,164,000 barrels.

The Alliance Oil Company.—This is the title of the new concern which is to take control of the concerns formerly known as the Graciosa Oil Co., the Californian Petroleum Refineries, Ltd., and the Pipe Line Company. Our field correspondent in California informs us that the new company controls about 20,000 acres of partly proven territory, and it gives every promise of shortly being a great factor in the market, inasmuch as it will have to purchase oil in the open market, thus stimulating drilling activity.

RUSSIAN AND ROUMANIAN NOTES.

Mr. Raky.—After spending some time upon a visit to England, Mr. Anton Raky left London shortly before Christmas for Roumania.

Hand-Dug Wells.—There are at present in the Roumanian fields about 100 oil producing hand-dug wells. Of this number between 30 and 40 are in the famous Bustenari region.

The Roumanian Refineries.—During the nine months of the past year the Roumanian refineries used 819,600 tons of crude, as against 766,000 tons for the corresponding period of 1908.

Prolific Tintea.—Well No. 5, owned by the Steaua Romana at Tintea, continues to spout, and now yields 300 tons per day. Up to the present time, this well has produced about 40,000 tons of crude petroleum.

Roumanian Production for November.—The production of crude oil in the Roumanian fields for November amounted to 105,426 tons, which is a figure about 3,000 tons below that of either September or October.

Baku Production.—The total production of crude oil at the Baku fields during November reached 39,789,651 poods. Details concerning the production for the eleven months of the past year will be found recorded elsewhere in this issue.

Suggested Reduction of Freights.—The committee appointed by the Russian Minister of Finance, at the request of the Baku refiners, to consider the advisability of reducing the rate for kerosene from Baku to Batoum, commences its sittings to-day, 1st January.

Ferghana.—Though Ferghana has not attracted much attention in the past, a writer in a Russian journal points out that the fields are bound to shortly become the centre of interest. Several wells have been brought in producers, though only drilled to the shallow depth of between 500 and 700 feet.

Baku Export Statistics.—The total exports of petroleum products from Baku during September amounted to 40,800,000 poods, or a total for the nine months of 316,000,000 poods. Compared with the figures for the corresponding months of 1908, an increase of 7,000,000 poods is found, three-fourths of which increase is accounted for by the shipments of crude oil.

To Assist Export.—The *Moniteur du Petrole Roumain* announces in its current issue that the Minister of Industry has suggested the creation of a company which, under his own patronage, shall occupy itself with the exportation of Roumanian petroleum products to the Orient, and more particularly to Egypt. The capital of the new company has been suggested to be 500,000 francs.

ENGLISH PATENTS.

(Specially contributed by Messrs. EDWARD EVANS & Co., Consulting Engineers, Chartered Patent Agents, and Enrolled Patent Attorneys, of the United States, of 27, Chancery Lane, London, W.C.

Applications Filed in Great Britain.

Improvements in and relating to the Treatment of Mineral and like Oils for Lighting, Motors, and similar purposes.—Sileno Fabbri, 96, Buchanan Street, Glasgow. No. 27714 of 1909.

Improvements in or connected with Apparatus for Making Gas from Oils and Spirits.—Walter George Moores, 173, Fleet Street, London. No 28055 of 1909.

Improvements in Lamps for Burning Hydrocarbons.—David Calvert, 47, Lincoln's Inn Fields, London. No. 28159 of 1909.

Compositon for Purifying Gas produced from Oils and Spirits.—Walter George Moores, 173, Fleet Street, London. No. 28054 of 1909.

Applications Published in Great Britain.

An Improved Carburettor for Air Gas.—Charles Henry Worsnop, 103, Waterloo Crescent, or Saville Park Road, Halifax. No. 24899 of 1908.

This relates to a carburettor for air gas which consists of three compartments, the uppermost compartment being used as a store for petrol or any other spirit from which the gas is made, and being provided with a tap to regulate the flow of spirit into the next compartment, in which is placed an inverted cone, with a slight indentation in the top, which will catch a small quantity of spirit, in such a manner that when sufficient spirit has dropped into it, it overflows the sides of the cone, and thus evaporates. In the lower part of this compartment is placed a cistern to catch any spirit that is not evaporated, and is provided with a tap so that it can be let off. Under the cone is placed an inverted cone in order to guide the air that is being forced through this chamber, and at the top part of the compartment is an outlet for gas. The lowest compartment is reserved for compressed air or a mechanism adapted to work a fan to force air through an aperture in the bottom of the middle compartment.

Treatment of Oils and Oily Liquids for Use in the Treatment of Ores.—Alfred Arthur Lockwood and Marcus Reginald Anthony Samuel, 12, Minories, City of London. No. 26264 of 1908.

This relates to the treatment of oils and oily liquids for use in the treatment of ores with oils which contain minute quantities of such metallic compounds as are insoluble in water and alkaline solutions; the oils being treated with a substance such as soluble soap and with the salt of a metal which can form an insoluble soap.

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	Tons. Oil Capacity.		Tons. Oil Capacity.		Tons. Oil Capacity.
Pinna	8,000	Caucasian	6,600	Luciline	5,200
Danubian	6,900	Lutetian	6,300	Le Coq	4,700
Servian	6,700	Terek	5,200	Rock Light	4,100
Carpathian	6.700	Balakani	5,200	Lux	2,900
Roumanian	6,700	Oriflamme	5,200		

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LATEST QUOTATIONS OF PETROLEUM SHARES.

ENGLISH COMPANIES.

This list is restricted to companies who have paid dividends or who are producers.

Company.	Capital Paid Up.	Value of Shares.	Latest Prices.
Assam Oil	£310,000	£1	13/0-14/0
Bibi-Eybat Petroleum Co. ..	£380,000	£1	4/0-5/0
Californian Oilfields	£400,000	£1	$4\frac{15}{16}$-$5\frac{1}{16}$
Commonwealth Oil Co. ..	£500,000 Pref.	£1	$\frac{5}{8}$-$\frac{11}{16}$
,, ,, ..	£225,000 Def.	£1	$\frac{5}{8}$-$\frac{11}{16}$
Lobitos Oilfields, Ltd. (£1) ..	£360,000	£1	30/6-31/6
Pacific Oilfields, Ltd. (£1) ..	£200,000	£1	25/6-26/6
Russian Pet. & Liquid Fuel ..	£500,000 $6\frac{1}{2}$% Pref.	£1	2/0-3/0
,, ,, ...	£600,000 Ord.	£1	2/0-3/0
Schibaieff Petroleum ..	£575,000 6% Pref.	£5	5/0-7/0
,, ,, ...	£575,000 Ord.	£1	0/3-0/9
Shell Transport & Trading ..	£2,300,000	£1	xr 66/0-67/0
,, ,, ,, ..	£1,000,000 Pref.	£10	$10\frac{7}{8}$-$11\frac{1}{8}$
Spies Petroleum Company ..	£465,000	10s.	17/9-18/3

RUSSIAN COMPANIES.

Company.	Nom. Value in Roubles	Quotations on Dec. 27th. Lowest Roubles.	Highest Roubles.
Baku Naphtha Co.	100	315	316
,, ,, ,, (issue of 1908) fully pd.	100	312	320
Balakhany Naphtha Co.	250	—	—
Caspian Society	1,000	4,025	4,075
Mazout Co.	250	—	—
Melikoff, A. C.	250	—	—
Mirzoeff Bros.	250	—	—
Naftalan Co.	250	—	—
Naphtha Co. "Kavkas"	250	—	50
Naphtha Trading Co., A. I Mantacheff & Co.	250	127	129
Neft Co.	250	—	75
Nobel Bros.	5,000	11,150	11,250
,, ,, ...	250	—	514
Rops and Co. V...	250	315	315
Russian Naphtha Co.	250	—	—
Society Mazout	250	—	400
Ter-Akopoff Co.	250	—	—
Tumaieff & Co., J. G.	250	—	—
Volga-Caspian Naphtha and Trading Co	250	—	—
,, ,, ,, (Second Issue)	250	—	—

SCOTCH COMPANIES

Supplied by Messrs. MACLEAN AND HENDERSON, STIRLING.

Company.	Capital Paid Up.	Value of Share.	Latest Prices.
Anglo-Persian Oil Co., Ltd., 6% Part Pref. (5s paid)	£150,000	£1	5s. 0d.
Do. 5% Deb. Stock	£600,000	£100	£92 7s. 6d.
Broxburn Oil Co., Ltd., Ord. 17/- pd	£235,000	£1	£1 18s. 6d.
Do. 6% Cum. Pref. ..	£100,000	£10	£12 3s. 9d.
Burmah Oil, Ord.	£1,100,000	£1	£4 8s 0d.
Do. Pref.	£250,000	£1	£1 7s. 0d.
Dalmeny Oil Co., Ord. (7 paid) ..	£37,800	£8 10s	£5 0s 0d.
Do. 5% Pref ..	£18,900	£7	£5 0s. 0d.
Oakbank Oil Co., Ltd, Ord.	£170,000	£1	£1 15s. 0d.
Do. Pref. (£1 paid)	£100,000	£1	£1 4s. 0d.
Pumpherston Min. Oil Co., Ld., Ord. (17s. paid)	£110,500	17s.	£8 5s. 0d.
Do. 6% Cum. Pref	£100,000	£10	£13 0s. 0d.
Tarbrax Oil Co., Ltd. Ord. (£1 pd.)	£65,000	£1	£2 8s. 6d.
Do. 6% Cum. Pref.	£40,000	£1	£1 4s 6d.
Young's Paraffin Co., Ltd., Ord. ..	£452,808	£4	£3 1s. 6d.
Do. "B" Deb...	£150,000	£100	£165 5s.

DUTCH COMPANIES.

Company.			Latest Quotations (per cent.)
Dordtsche Petroleum Industrie My.		Aand.	174
,, ,, ,, ..	Pref.	,,	$194\frac{7}{8}$
Int. Roum. Petroleum Maatschappij		,,	$27\frac{3}{8}$
Royal Dutch Petroleum Co.		,,	439
Mœara Enim Petroleum Maatschappij ..		,,	$193\frac{3}{8}$
Oklahoma Petroleum Co.	Pref.	,,	$125\frac{1}{2}$
Perlak Petroleum Maatschappij		,,	$141\frac{3}{8}$
Sumatra Palembang Petroleum Maatschappij		,,	$167\frac{1}{2}$
Zuid Perlak Petroleum Maatschappij ..	Pref.	,,	188
Union Petroleum Co.		,,	$97\frac{1}{2}$
Bibi-Eybat Petroleum Maatschappij		,,	$23\frac{7}{8}$
Russian Petroleum and Liquid Fuel Co. ..		,,	$15\frac{7}{8}$
,, ,, ,,	Pref.	,,	$16\frac{1}{2}$
,, ,, ,,	(6% Debs.)	,,	35
Schibaieff Petroleum Co. (Ord.)		,,	$4\frac{3}{4}$
,, ,, ...	Pref.	,,	8
Shell Transport and Trading Co ..	Pref.	,,	338
Tulsa Petroleum Co.		,,	$92\frac{1}{2}$

THE INDIAN PETROLEUM MARKET.

(*Crowded out of page* 25.)

BOMBAY, Dec. 11th.

The petroleum market is strong. The following are the current prices of the Standard Oil Co. of New York:

		Rs.	a.	p
Snowflake Brand, 150 deg., American	(per case)	6	4	2
White Rose, 150 deg. ,,	,,	6	4	2
Chester Brand, 76 deg. Abel	,,	4	12	2
Devoe's Brilliant	,,	4	12	2
Monkey Brand, 76 deg. Abel	,,	4	6	2
Elephant Brand, 125 deg. (bulk in tins)	(per 2 tins)	3	15	0
Elephant Brand, 125 deg. (bulk without tins) (per 8 Imperial gallons)		3	5	0

The following are the current prices of the Asiatic Petroleum Co., Ltd.:—

		Rs.	a.	p.
Swan Brand, bulk loose..	(per unit)	2	15	0
Swan Brand, new tins	(per pair)	3	9	0
Ship Brand, bulk loose	(per unit)	3	5	0
Ship Brand, new tins	(per pair)	3	15	0
Rising Sun Brand, bulk loose	,,	3	7	0
Rising Sun Brand, new tins	,,	4	1	0
Anchor Cases	(per case)	4	3	0
Silver Light 150 deg. cases, ...	(per case)	5	4	0

The prices of the Burma Oil Co.'s productions are as under:—

		Rs.	a.	p.
Kerosene, Victoria	(per 2 tins)	3	8	0
Kerosene, Victoria	(per 8 gallons)	2	14	0
Kerosene, Chukker	(per 2 tins)	3	15	0
Kerosene, Chukker	(per 8 gallons)	3	5	0
Burmah Wax	(per pound)	0	3	6
Burmah Candles	,,	0	5	0

PRODUCTION OF ENGLISH COMPANIES IN RUSSIA.

BAKU RUSSIAN PETROLEUM CO., LTD.—No details of this company's production are now forthcoming.

RUSSIAN PETROLEUM AND LIQUID FUEL CO., LTD.—The production for the week ended 18th December was 149,000 poods, or 2,402 tons; and for the week ended 25th December was 143,000 poods, or 2,305 tons.

SPIES PETROLEUM CO., LTD.—The production for the week ended 19th December was 341,070 poods, or about 5,501 tons. The total production for year to December 19th was 13,827,795 poods, or about 223,029 tons. The total production for the corresponding period last year was 11,150,555 poods, or about 179,848 tons. Production temporarily affected by shortage of steam power owing to boiler cleaning. The production for the week ended 26th December was 325,065 poods, or about 5,243 tons. The total production for the year to 26th December was 14,152,760 poods, or about 228,270 tons. The total production for the corresponding period last year was 11,337,625 poods, or about 182,865 tons.

THE EUROPEAN PETROLEUM CO., LTD.—The production for the week ended 19th December was 107,208 poods, or 1,728 tons; and for the week ended 26th December was 110,674 poods, or 1,784 tons.

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THE
PETROLEUM REVIEW,
45, St. Mary Axe, London, E.C.
American Office: 150, Nassau Street, New York.

SATURDAY, JANUARY 1, 1910.

THE TREND OF OIL PRICES IN 1909.

THE question of prices is always a subject to which attaches great importance, by reason of the fact that in regard to petroleum exploitation all over the world, it is the financial aspect which alone differentiates between those good and bad periods of trade which befall every branch of commerce.

In the petroleum industry we stand on tolerably safe ground when we say that there have been few years during which petroleum prices have more consistently declined than has been the case during the now departed 1909. In sympathy as it were with each other, the producers, both in the Eastern and Western hemispheres have all been forced to recognise the setting in of a period of diminishing profits following decreasing prices, and, we believe without exception, this period even still prevails with the passing of the year.

There are, of course, many reasons which may be advanced for the falling of prices in the respective producing countries—in fact, in each case there are various circumstances of a diversified nature which have contributed to bring reduced oil values into general vogue —but the position has in every instance been brought about as either the direct or indirect result of competition.

With the march of progress, the quick, cheap and up-to-date methods of transport, and the economical way in which the refining of the crude oil is carried on to-day, combined with the increasing use of the various products of petroleum the world over, the refined products of petroleum from the different centres of production are constantly meeting each other in open competition in the markets, and thus it is no small wonder that, as time goes on, the various interests, in order to make their position more secure upon this or that market, reduce prices. The accruing advantage—if there be any at all —does not remain theirs for long, for the competitive organisations follow the lead given, and thus, without the slightest benefit to anyone, values are reduced, and the producer, the refiner, the transporter, and the distributor alike share in the unfortunate result.

We have many instances of this during the past year, if we look either at home or abroad. Let us take the English market first. During the past year kerosene prices have dropped one penny per gallon, and thus we may take it that something like £500,000 has been lost to the importers and distributors of illuminating oil in this country, yet no one has secured any advantage. In Scotland, too, 1909 proved to be a year of very low prices. The Scottish refiners there, however, reduced prices with a distinct object in view. Of late, Galician petroleum has been coming in for a fairly good trade in Scotland, while, in addition, the large American interests, as we have already stated, have shewn a desire to capture a portion of the trade which until the present has been in the hands of the Scottish refiners. Thus not only have the prices of illuminating oil fallen, but in sympathy with them, those of all the associated products have decreased.

With reference to America, the year 1909 closed leaving oil values considerably lower than it found them. Just a year ago Pennsylvanian crude was commanding 1·78 dollars per barrel, but after the year was four months' old a cut of five cents was made. Since that time there have been several other reductions, and now we find Pennsylvanian crude standing at thirty cents less per barrel than it was at the beginning of 1909. All other crudes have fallen in fair proportion, and the decreasing tendency has been so general that at New York the refined products, in bulk, cases, and barrels, declined during the year by no less than 0·45 cents per gallon.

As a natural result, drilling activity has been to some extent curtailed, but in view of the enormous quantities which are now stored above ground, this diminution of energy in oil-field operations should materially assist the market to recover its former position. The outstanding feature in the American petroleum situation is the relation which the price of crude oil always bears to the refined product. As surely as the price of refined oil advances, so do crude oil quotations, while when the the latter decline (and we have ample evidence of this during the past year), the refined oil market immediately moves in sympathy. The result is, that no abnormal periods occur as in the case of other large producing countries—a gratifying fact due to nothing but the operations of the Standard Oil Co., where the working of a well defined policy exercised both in the producing, refining and transporting branches of the industry spells economy all round. Of this one thing we are convinced. When the conditions are such that create an advance in the refined oil market, no one feels it sooner than the American operator, who receives an enhanced price for his crude oil, while on the other hand, when reductions have to be made in order that American petroleum products shall withstand the increasingly severe competition upon the world's markets, the American operator is contented with the knowledge that though he may have to accept less for his crude, that figure will not be an artifically low one.

With regard to Russia, prices both for crude and refined are always varying in a manner unequalled by no other oil-producing country, and last year, no exception to the rule, there were numerous changes in the market, the variation between the crude and refined oil prices being occasionally very marked. The trend of prices, however, was on the down grade, and the year closed with quotations a little lower than they were at its commencement.

The Roumanian market witnessed a steady yet almost continuous slackening of prices. Last January the crude oil from the various fields, including pipe line charges, was commanding a little over 4½ francs per 100 kilogrammes, but a few successive drops brought the price down to almost 3½ francs, while at the end of the year it was very little better.

Galicia has also had to suffer several cuts in the price of oil during 1909, due mainly to the crisis which has overtaken the industry for quite a long time past, but a greatly improved outlook has already asserted itself, and the New Year brings hope for the numerous Galician oil producers and refiners, who at one time had ruin staring them in the face.

And so throughout the world of petroleum, the past year has been one long period of declining prices, due to various causes, we doubt not, yet all hanging upon that one principle of competition. What the year we are just entering upon has in store for the industry, we are not able to say, but to the careful student it must be apparent that prices both for crude oil and its multifarious refined products have thereabouts reached their lowest ebb. We at least hope this is so, for enhanced prices all round would not cause the slightest harm to a single person, and yet would permeate the petroleum industry with a far more healthy tone.

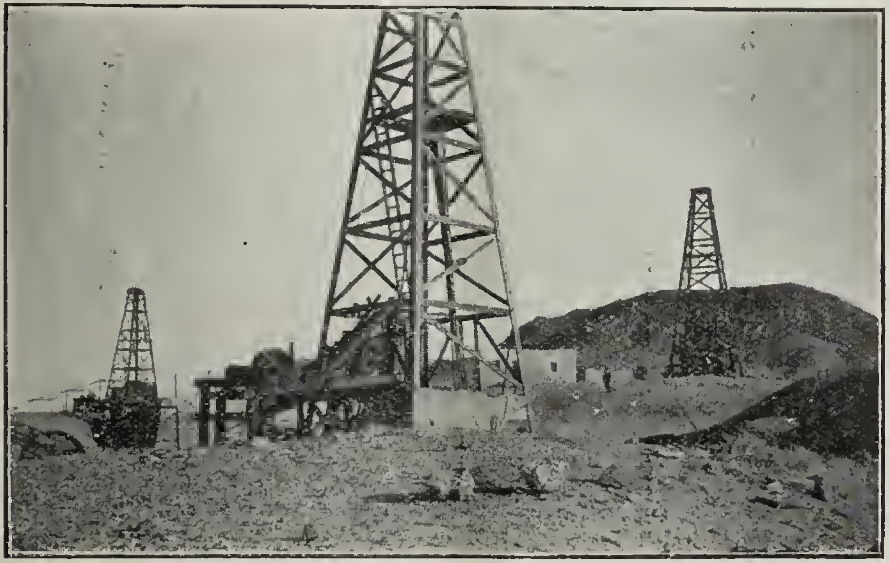
THE EGYPTIAN OIL TRUST, LIMITED.

PRODUCTIVE WELLS OF FIRST QUALITY—TERMS OF THE NEW COMPANY.

The second ordinary general meeting of the Egyptian Oil Trust, Limited, was held on Wednesday at the Westminster Palace Hotel, Victoria Street, Westminster, under the presidency of Mr. Allen Paull.

The Secretary (Mr. Thomas Carter, A.C I S) having read the notice convening the meeting and the report of the auditors,

The Chairman, in moving the adoption of the report and accounts, said: Since I had the pleasure of addressing the shareholders last year considerable improvement has taken place in the prospects of the company, which renders this occasion one of more than usual interest. As doubtless there are present some persons who have only recently become shareholders in this company, it would be as well, perhaps, if I were to briefly describe the objects of this company. Your company was formed to take advantage of an option given to it, under certain conditions, by the Egyptian Petroleum Co. to prospect for oil at Jemsah, on the Egyptian shores of the Red Sea, 160 miles south of the town of Suez. In accordance with this agreement we commenced to bore on January 1st last year (1908). Briefly, the results of our efforts have exceeded our most sanguine expectations. The first well was sunk on Jemsah Headland, at a spot selected by Mr. Sutherland, our technical expert and general manager. In the early part of April of this year oil in large quantities was struck in this well at a depth of 1,287 feet. In fact, this well proved to be what in oil circles is called a "gusher." Thanks to the skill of the driller, it was successfully capped. Mr. Sutherland, who is now on his way home from Australia, visited your property so recently as August last, and this well—well No. 1, as we will call it—was flowed on several occasions in his presence. Owing to the great pressure — 140 pounds to the square inch—of oil and gas, the gate valve, or cap of the well, could not be opened to allow of more than one-eighth of an inch clearance, and this only with great care. The rush of oil and gas was so great that a flow of fully two barrels per minute was obtained for a quarter of an hour, when the storage tank was filled. Two barrels per minute is considerably in excess of 300 tons per day. When this well first came into production, Mr. Josh, the superintendent at Jemsah, flowed a thousand barrels at this pressure. He states that even this great pressure has since increased. Of course, it is impossible at this stage to estimate the permanent rate of production of this well, but the very porous dolomitic limestone in which the oil occurs, and the general geological conditions of the district, favour the presumption of a large reservoir containing great quantities of oil.



A View of the Company's Property.

Early in the month of March, last year, the boring of No. 3 well was commenced about 450 feet from the first well. After passing through similar geological conditions to those met with in well No. 1 we had the good fortune to strike another "gusher" at the depth of 1,640 feet. The difference in the depths at which the "gushers" were struck in No. 1 and No. 3 wells is accounted for by the fact that the position of No. 3 well is probably on the slope of the anticline. This well came into production since Mr. Sutherland's visit to the property, and we, therefore, have not the advantage of his criticisms upon it; but Mr. Josh is of the opinion that in well No. 3 we have a well which in pressure and production equals, if it does not exceed, well No. 1. Last April the boring of well No. 2 was commenced at a spot 150 feet distant from well No. 1. This well on December 20, the date of the latest report from Jemsah, had reached the depth of 891 feet. It is of considerably larger diameter than well No. 3, and is accordingly taking longer to drill. The boring of a fourth well was begun in November, and up to the last report it had reached a depth of 309 feet. This well, No. 4, like well No. 2, is passing through the same geological formation as was met with in the producing wells Nos. 1 and 3. It is too early yet to speak with certainty as to what the further developments of this well and No. 2 well will reveal, as neither of them has yet reached the level at which oil can be expected; but in view of the undisturbed character of the strata of Jemsah, where all these wells are situated, your directors are hoping for similar satisfactory results with these wells as have attended their efforts with wells Nos. 1 and 3. To sum up the results of our operations since we began boring last year, we have four wells at different stages. Nos. 1 and 3, the only wells which have reached the level of the oil zone, have proved to be "gushers," and Nos 2 and 4, whilst they are not yet at the level where oil may be expected to be struck, are showing at their respective depths as favourable indications for eventually striking the oil as the two producing wells displayed at similar depths. The boring of a fifth well will be commenced in the course of a few days. Two additional rigs and sets of drilling tools have been ordered, and should be delivered on the ground shortly, when two further wells will be immediately begun. The board have under consideration the ordering of still further rigs and drilling tools to bore as rapidly as possible a number of wells sufficient to ensure the production of a large and regular supply of oil.

I should like to say a word or two about the quality of the oil, and I need hardly say that the quality is almost as important as its quantity. Here, again, the shareholders have reason to be gratified. The analysis of our oil proves that it compares equally with the best Ohio oil, hitherto regarded as the best oil in the world. Analyses of the oil have been made by the Egyptian Government analyst and the highest authorities in this country. The oil is of very high quality, and when tested for contents of commercial products yielded:—Benzine or motor spirit, specific gravity, 733—22·2 per cent.; kerosene, flashpoint 85 F., specific gravity, 813 — 33·5 per cent.; intermediate or lubrication oils, with solid hydrocarbons (paraffin), 42 per cent. Paraffin wax, representing 3¼ per cent. by weight of the crude oil was separated. When distilled with a view of obtaining fuel oil, the crude oil was found to yield 55 per cent. of a residuum of a flash point of 180 F. and 50 per cent. of a residuum of a flashpoint of 230 F. The 50 per cent. residuum had a specific gravity of 0·899, and although fluid at 32 F., considerable separation of solid hydrocarbons occurred at that temperature. After this paraffin had been removed by filtration the calorific value of the fuel oil was 10,868 calories per gramme —19,563 British thermal units. The oil is of paraffin base, and contains enough paraffin to render the separation of this product a profitable commercial operation. But it is not merely necessary to have oil in great quantities and of good quality; it is essential that the oil should be within reach of markets. For this purpose there could not be a more convenient spot for an oil field than the Egyptian shores of the Red Sea. A very large proportion of the shipping of the world passes within two miles of our wells, which are situated within a few hundred yards of deep water. The Red Sea, it is hardly necessary to say, is the great waterway of the world. It is the short cut between the Western and the Eastern World. The oil can be shipped within a few yards of our wells to any of the world's oil markets. With the view of ascertaining the possibility of providing suitable harbour or pier accommodation for vessels shipping our oil, the board in the spring of this year dispatched Mr. Robert Henderson, C E., the well-known harbour works engineer to the property. Mr Henderson reports that such accommodation will be neither difficult nor expensive to construct. Labour is plentiful, willing, inexpensive, and, with a little instruction, very efficient. The work has not been interfered with in any way by the great heat experienced in this part of the world in summer, whilst as to the healthy character of the spot, it is only necessary to say that in the two and a-half years the staff has been at Jemsah only two slight cases of illness have occurred.

By the agreement with the Egyptian Petroleum Co., to which I have already referred, we are required within six months of the declaration of the option to form a new company for the purpose of providing working capital for the further development of the oil field. The option was duly declared by your company in August last, and it is necessary that the new company should be formed by the end of January. Accordingly a new company—the Red Sea Oilfields, Ltd.—has been formed to take over the Jemsah area. The capital of this company will consist of £450,000 in £1 ordinary shares, of which 80,000 fully paid shares - the agreed purchase consideration for the area—will be given to the Egyptian Petroleum Co., 240,000 shares will be given to your company—the Egyptian Oil Trust—and the remaining £130,000 will be available for working capital and other expenses Your directors have much pleasure in announcing that they have concluded preliminary arrangements for the underwriting and subscribing of sufficient working capital at 5 per cent., with the call on the remainder for a certain period. Your directors regard these terms as satisfactory. The Red Sea Oilfields, Ltd., will, in addition, take over, at a valuation to be agreed between the two companies, the movable assets employed in the development of the Jemsah license, and the proceeds will enable the Egyptian Oil Trust to commence development work upon some of its other licenses. Let me add that your directors are fully aware that if the erection of a refinery, the the purchase of tank steamers, etc., were contemplated it would not be possible to secure the objects by means of the sum we are now raising; but your directors propose to proceed cautiously in this matter. We are persuaded that there is a very large market for our oil without proceeding to the expense of a refinery, and tank steamers can always be chartered. Should it be decided in future that a refinery and tank steamers are advisable, your directors are confident that it will be possible to secure money for these objects on a not too expensive preference share or debenture basis I may say that this working capital will provide for, amongst other things, storage tanks, stills, and the erection of the harbour accommodation to which I have already referred, if this be finally decided upon. With regard to the other licences possessed by the company, we are informed that some, if not all, display conditions very favourable to the expectation that there may be oil on them. As quickly as possible experimental borings will be put down on the other licenses, and we can only hope that our efforts in these directions will be as successful as they have been at Jemsah. Regular reports—weekly, if possible—of the operations of the new company, the Red Sea Oilfields, as well as reports of the Egyptian Oil Trust's operations on the other license areas, will be issued to the shareholders. I am sorry that our general manager and technical adviser, Mr. D. A. Sutherland, F.I.C., is not with us to-day. The thanks of the shareholders in an especial sense are due to Mr. Sutherland. The diagnosis, so to speak, of the geological conditions of the property described in his original report, and upon which the necessary money for testing the property was provided, has been amply corroborated by the experience of the drillers. Mr. Sutherland selected all the spots where wells have been sunk, and your board attribute the success they have met with largely to the skill displayed by Mr. Sutherland in this respect. It is Mr. Sutherland's intention to visit the properties again as speedily as convenient. Mr. Josh and his staff at Jemsah are also entitled to the thanks of the shareholders for the successful manner in which the operations at Jemsah have been carried out. Technical oil experts who have visited the property during the past year concur in testifying to the efficient and thorough manner in which the camp has been conducted, and specially to the skill exhibited in the boring, which has been done under Mr. Josh's direct personal supervision. The board desire to express their regret that Mr. W. Blyth, who has occupied with much success the chairmanship of this company during the early stages of its existence, finds himself unable to continue to devote his time and attention to the affairs of the company. The board feel that they and the shareholders of the company owe Mr. Blyth a very warm vote of thanks for his invaluable services. I beg to move that the directors' report and balance-sheet, as presented, be received and adopted.

Mr. Frank Bailey seconded the motion, which, after a brief discussion, was unanimously carried.

Mr. J. D. Mackenzie proposed the re-appointment of Messrs. Josolyne, Miles and Co. as auditors, and this was seconded by Mr. Chamberlain and carried.

Mr. Dick proposed a hearty vote of thanks to the chairman and directors for their services, and said he would like to include in that vote the secretary. He was sure the shareholders were all very pleased indeed with the satisfactory report they had heard, and could only trust that on another occasion they would hear that many other wells had been brought into bearing.

The vote was unanimously accorded, and, in acknowledging, the Chairman said the shareholders might feel assured that the work would be carried on in the future with the same steadiness as in the past. He hoped when they met a year hence the board would have some very satisfactory information to lay before them.

The proceedings then terminated.

THE ANGLO-CALIFORNIAN OIL SYNDICATE, LIMITED.

The third annual meeting of the shareholders of the Anglo-Californian Oil Syndicate, Ltd., was held at the Baltic Exchange, London, E.C., on Friday, 24th December, the company's chairman—Mr. Magnus Mowat—presiding.

The directors' report stated that in March last the directors found it needful to obtain further capital, and were gratified at the ready response. Out of the 10,000 preference shares offered to the holders of the ordinary shares, 8,061 were subscribed. During the year, work upon the company's No. 1 well had been pursued vigorously, and a depth of 3,450 feet had been reached. Of late, the results of the boring had been increasingly encouraging, for mud had been shot out of the well above the derrick. No. 2 well had reached a depth of 1,980 feet. Delays had been experienced which accounted for the slow progress made during the year.

The Chairman, in moving the adoption of the report and accounts, said that they had had a busy time since last the shareholders were called together, and he was glad to say that now their efforts were likely to be crowned with success, for their well No. 1 had given a great upheaval of mud, which shewed a pressure that was most encouraging.

In seconding the report's adoption, Mr. Shyvers said that though the company obtained its land at a very low price of $50 per acre, and of that price three-fourths was paid in shares to the vendors, the value of the land had been considerably enhanced by the operations of the syndicate. Its value had been increased not only as the result of their work, but by the natural increment arising from oil developments throughout California. Since their last meeting the company had achieved very favourable progress, and now they had strong grounds for the belief that they were shortly going to find oil. The indications were very encouraging. They had encountered a very strong pressure of gas in their well No. 1, and it seemed strange that one of the chief sources of delay in finding the oil was, after all, the chief asset in their hopes of finding it. They had had to fill the well with water almost to the top in order to reduce that pressure so that they might proceed with the drilling. That pressure had been so great as to result in what was known technically as a mud well, a feature frequently associated with the bringing in of an oil gusher, as was the case in Texas. Together with Sir Boverton Redwood, the speaker shared some disappointment at the size of the diameter of the well, which was 4½ inches, but he desired to point out that the diameter of the Palmer well, even at 3,200 feet, was 4½ inches, and yet that well had no equal throughout California. He could only hope that the shareholders would still have confidence and that the same luck would befall the syndicate as that which came to the Palmer people when they struck their gusher.

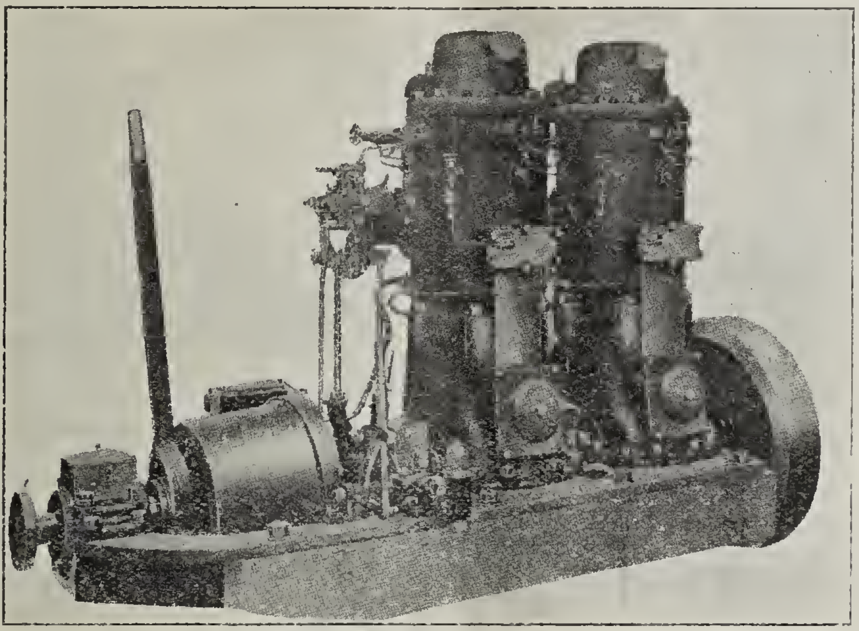
The report was adopted unanimously.

At the suggestion of the Chairman, Sir Boverton Redwood, the syndicate's technical adviser, addressed the shareholders. In the first place he spoke of the great care with which the syndicate's work was managed by the members of the board, who had devoted much time to their duties. They were all very disappointed at again having to meet the shareholders without being in the position of announcing that they had found oil, but short of that, he thought they might congratulate themselves that the outlook was so encouraging. There was no period of that syndicate's operations when the conditions were more hopeful than they were that day. Looking backward, the history of their undertaking had been characterised by slow yet steady progress towards the end in view.

Messrs. Magnus Mowat and H. H. Keddell were re-elected unanimously as directors, and with the re-election of the auditor and a vote of thanks to the Chairman, the meeting closed.

A NEW SWEDISH MARINE OIL ENGINE.

The motor fishing vessel, "Bolinders VII.," which was in the Thames a few weeks ago, attracted more attention than is usually bestowed upon foreign-built craft. This bluff-built boat, 60 feet long by 19 feet beam by 9 feet in depth, is quite an ordinary-looking type of sailing vessel, and it was only when she started to go up stream with sails furled and with no visible smoke of propulsion about her that she presented a somewhat puzzling problem to the bargemen and the longshoremen, whom she soon left behind. The secret of her construction and speed lies in the fact that she is fitted with a direct reversible engine of 80 b.h.p., burning crude oil, shale oil, or paraffin, and capable of sending her along at the very serviceable speed of 8 knots.



The Bolinders Direct Reversible Marine Oil Engine.

Built and engined in Sweden by Messrs. J. and C. G. Bolinders, Ltd., of Stockholm, the "Bolinders VII." is at present on a tour round the British Isles for the purpose of demonstrating the advantages of the Bolinders oil engine for marine purposes; and with this end in view she will call at the leading ports around the coast. Lately, as we have stated, she was in the Thames, and on the 2nd ult. her engines were thoroughly tested in the presence of a representative company of pressmen and others. Messrs. James Pollock, Sons and Co., Ltd., of 3, Lloyd's Avenue, London, marine engineers and naval architects, are the sole British representatives for these Swedish engines.

Before endeavouring to describe in outline this compact and economical working engine, we might say that there are now over four thousand Bolinders crude oil engines in successful use to-day in all parts of the world, and that the operations of the firm are being continually extended. The output for the last twelve months consisted of 1,200 engines of various sizes, and the firm's Stockholm works, which now cover in all 200 acres, of which over 2 acres represent the floor area of the motor fitting and machine shop, are quite capable of increasing very largely their capacity without the necessity of adding to their present space.

Now, with regard to the design of the engine. It has no cam valve gears, merely two eccentrics to each cylinder, and a valve motion not much more complex than the ordinary link-motion, and certainly less so than any variations of the Corliss gear. There is no delicate magneto-ignition with its timing devices. The fuel is pumped into a bulb at the top of the cylinders, just before the end of the up-stroke, and is immediately vaporised and fired. The heat evolved by the compressions and explosions which follow is quite sufficient to keep the temperature within the bulb at flash point. The engine, says a writer in the *Mariner*, can drive the vessel ahead or astern at will, without the interposition of either epicyclic clutches or feathering propellers. That is to say, it is one of the few oil motors which has the prospect of being employed on the highly powered commercial vessels of the immediate future. Reversible petrol engines for marine service are not uncommon in the United States, while reversal by compressed air has been the fairly usual practice in motors of various designs for some time past on the Continent of Europe; but the Bolinders is the first to reverse its direction of rotation without appealing to any external source of power. In one of the best known commercial marine motors a belt-driven compressor is installed. In another a two-stage air compressor is mounted on the crank shaft. In the Bolinders no special fitting is required, except a plain receiver, which is connected to the engine cylinders, a portion of the exhaust gases escaping into it until a sufficient pressure is attained.

CLASSIFIED IMPORTS INTO UNITED KINGDOM UP TO DECEMBER 27th, 1909.

IN GALLONS.

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Country.	Illuminating.		Lubricating.		Residuals.		Gas Oil. (Solar)		Benzine.		Fuel Oil.		Other Descriptions.		Totals.	
	Since Dec. 13.	From Jan. 1.	Since Dec. 13.	From Jan. 1.	Since Dec. 13.	From Jan. 1.	Since Dec. 13.	From Jan. 1.	Since Dec. 13.	From Jan. 1.	Since Dec. 13.	From Jan. 1.	Since Dec. 13.	From Jan. 1.	Since Dec. 13.	From Jan. 1.
Austria ...	—	—	7,500	133,400	—	181,910	—	—	—	—	—	—	—	—	7,500	325,310
Belgium ...	—	370	24 400	655,650	—	200	—	—	—	—	—	—	—	634	24 400	656,854
Canada ...	—	—	—	4,380	—	42,170	—	—	—	—	—	—	—	—	—	46,550
Dutch India.	—	400	—	1,200	—	—	—	—	—	26,257,570	—	80	—	80	—	26,259,330
Germany ...	54 240	5 502,960	37,060	1,754,720	—	8,250	—	426,000	—	1,920	—	—	—	28,650	91,300	7,722,600
Holland ...	—	304,690	160	16,230	—	—	—	—	56,000	3,732,090	—	—	—	146,550	56,160	4,199,560
Roumania ...	—	8,315,940	—	500	—	1,607,000	—	3,642,800	—	4,817,480	—	—	—	—	2,080	18,385,800
Russia ...	—	18,284,272	880	6,805,770	—	407,420	—	160	1,200	1,715,940	—	—	—	64 200	—	27,216,152
U.S.A. ...	4,442,320	109,545,849	2,280,610	41,075,825	5,410	61,530	3,414,370	70,192,100	200	14,793,530	—	8,715,980	10,940	1,480,010	10,153,850	245,924,354
Other Countries	—	436,070	680	66,630	--	—	—	1,000	—	1,306,160	—	480	—	2,310	680	1,812,650
	4,496,560	142,390,542	2,351,290	50,514,305	5,410	2,308,480	3,414,370	74,262,060	57,400	52,624,690	--	8,716,540	10,940	1,722,434	10,335,970	332,549,160

THE KEROSENE IMPORT TRADE OF CHINA.

The British Consul, in reporting upon the kerosene trade for 1908, in a report just issued says :—The increase in the import of kerosene oil continues steadily; this article appears to be uneffected by general depression of trade, and is the only commodity which shews a conspicuous increase. The total increase compared with 1907 was 24,800,595 gallons, American oil alone increasing by 26,177,279 gallons. The Standard Oil Co. continues to push vigorously the sale of its oil in the interior, and both this American company and the Asiatic Petroleum Co. take full advantage of the facilities afforded by railway extension. The Borneo product declined by nearly 8,000,000 gallons. New oil tank installations were completed during 1908 at Tsingtau, Wei Hsien (in Shantung) and Amoy, and others are in course of construction at Dalny, Kiukiang and Wuchow.

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ROUMANIAN EXPORT STATISTICS FOR NINE MONTHS.

The total exports of all petroleum products from Roumania during the nine months of this year amounted to 290,511 tons, as against 351,479 tons for the corresponding period in 1908, shewing a decrease of 60,968 tons, or 17·4 per cent. This diminution in the exports can be explained by the unfavourable conditions prevailing on the international market owing to the increasing competition of the great petroleum organisations. The following table shews the amount of the exports of various products :—

	1909. Tons.	1908. Tons.	Decrease in Per Cent.
Crude Oil, Gas Oil, Residuals, and Lubricating Oils ..	30,958	59,613	48
Illuminating Oil	189,097	191,372	1·2
Benzine	70,456	100,494	30

The decrease in the exports of crude oil, etc., is due to the reduction in the exports of gas oil to England and of crude oil to Hungaria.

Of paraffin scale there was exported 377·2 tons, of which 183 tons were to Italy, 95½ to Germany, 67½ tons to Turkey, 23½ tons to Bulgaria and the rest to various countries.

The first place as a consumer of Roumanian petroleum products is occupied by France with 74,484 tons, as against 91,165 tons in 1908. Then comes Egypt with 50,584 tons (56,800 in 1908); England, 47,816 tons (against 79,612 tons); Italy, 28,833 tons; Turkey, 28,159 tons; and Germany, 22,692 tous.

England is the largest buyer of crude oil (12,853 tons), then Italy and Holland. As regards illuminating oil, the first place is occupied by Egypt with 49,891 tons, and then comes England, Turkey and Belgium. In the benzine trade the first place comes to France and the second to Germany, after which follows England and Italy.

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PROFITS IN THE RUSSIAN PETROLEUM INDUSTRY.

Some very interesting statistics are given in the latest issue of the *Neftannoie Dielo* concerning the profitable nature of the various petroleum enterprises operating in the Baku oil fields.

Our contemporary divides the leading firms into groups, the first of which consists of fifteen enterprises whose total capital is £12,352,000. The profit which these fifteen companies earned during 1907 (which is the year to which the statistics refer) was £2,188,200. The total percentage on the nominal capital was 32 per cent., or, after allowing the payment of loans, debentures, etc., the profit shewed 17·7 per cent. upon the whole capital. These companies paid out dividends amounting to £935,400, or an average of 13·8 per cent.

In the second group there are included eighteen enterprises whose total capital is £7,997,900, and here the profit for 1907 was £840,400, or a percentage upon the nominal capital of 15·7.

[This was the year when the whole of the English companies operating in the Baku oil fields not only failed to make a profit, but actually carried on operations at a loss.—Ed., *P.R.*]

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The Anticlinal and Hydraulic Theories of Oil and Gas Accumulation.

By MALCOLM J. MUNN.

(Continued from page 352.)

In the statement mentioned last issue, it will be noted that provision is made for accumulation of oil into pools in dry rocks by the direct action of gravity, and in rocks partly saturated and partly dry by a combination of the direct action of gravity and the force exerted upward by the difference of gravity of oil and salt water. While this theory seems very simple and practicable, its limitations are so extremely evident that its popularity can only be explained upon the ground that the formulation of a better hypothesis has not been seriously attempted.

Concerning the more glaring defects of this theory, attention might be called to the fact that it makes no adequate provision to account for the enormous pressure developed in both oil and gas wells. What explanation is given for a pressure sufficient to flow from a sandstone 20,000 barrels of oil per day through a 6-inch hole 2,000 feet deep, or the production of more than 80,000 barrels of oil per day from a 6-inch hole drilled to a dolomitic limestone more than 1,000 feet below the surface? Again, the closed pressure of the better grade of gas wells is seldom less than 300 pounds per square inch, and is frequently from 800 to 900 and even as high as 1,500 pounds to the square inch, some of the wells having a maximum daily capacity of more than 30,000,000 cubic feet. What explanation of this well-known phenomenon of pressure does the above stated theory make?

That such pressures can be secured by a difference of gravity of oil, water and gas, or through the weight of oil or gas in the producing sand, seems impossible. The maximum pressure possible to obtain in this way is by gravity direct, in beds standing vertically. Under such conditions this pressure would be equal to the weight of a column of oil through the vertical section of the saturated zone. The dip of the oil-bearing beds in the oil fields of the Appalachian region is seldom, if ever, more than 200 feet to the mile. In most pools it is less than 50 feet and the dip within the limits of a few very large pools is less than 30 feet to the mile. The greatest dip within the limits of oil pools in this region ranges from about 30 feet to about 150 feet. This gives, therefore, a maximum pressure in dry rocks ranging from about 10 to less than 55 pounds per square inch. In saturated rocks the maximum pressure under the same circumstances would be limited by the lifting power of a body of oil floating on water, which is about 0·26 of the weight of the column of oil.

It has been suggested by geologists favouring this theory, that pressure is caused by the generation of gas from oil within the pool after it is formed. This may be true, but since the theory provides that the oil is free to move towards the pool by gravity, what is to prevent the newly generated gas from forcing the oil back along this route, or else dissipate this pressure throughout the sandstone? When it is remembered that many oil pools located on the axes of anticlines, in places when no higher drainage areas are available in the oil sand, and from which no water is obtained, flow oil and gas freely through from 1,500 to 2,500 feet of two-inch pipe, it will be seen that the anticlinal theory as given above and as usually stated by geologists, furnishes no adequate explanation of the phenomenon.

The favourite bugbear to which most misapplications of the accumulation-by-gravity idea of the anticlinal theory are attributed by its adherents to the time-honoured delusion—imperviousness of strata. Failures to locate or outline pools by mapping the structure of the oil-bearing bed are too often attributed to the imperviousness of the oil sand. This is the orthodox way of dodging the point, and it sometimes doubtless serves a useful purpose, but its abuse is not conducive to the progressive study of the problem involved in oil and gas accumulation. No unaltered sedimentary rocks of the type in which oil and gas pools occur are impervious. Every known fact regarding the lithologic character of the oil sands as a whole shews that from 10 to 40 per cent. of their bulk is made up of pore space. Data relative to the porosity of the enclosing beds of shales are less plentiful, but their pore space doubtless ranges from 1 to 15 per cent. with an average of not less than 6 per cent. This means that in every square foot of the so-called impervious beds overlying an oil and gas pool about 8½ square inches are holes. The most impervious patches probably have from 1½ to 2 square inches of pore space in every square foot.

The anticlinal theory implies that oil pools have been accumulated very slowly, globule by globule, through a comparatively long geologic time. If this be true but little pressure could obtain in a pool before the oil would be forced out of the porous sandstone into the more dense but still quite porous shale as rapidly as it was mysteriously collected from the underlying shale, as provided for in this theory. The fact that hundreds of high pressure pools do exist under shale beds of average porosity and even in pay streaks enclosed by sandstones having a porosity of from 10 to probably more than 25 per cent., shews beyond doubt that this theory fails utterly to provide a clear explanation of this very essential feature.

As previously stated, the concensus of opinion among geologists is that most of the oil now accumulated in sandstones has come from associated shales where it was widely diffused in minute globules. Many indisputable facts tend to prove that this is true. The great affinity of oil for shale and its corresponding lack of affinity for sandstone are well known. If crude petroleum and clay, of which shale is largely composed, be mixed in water, a considerable portion of the oil will attach itself to the particles of clay with such tenacity that it will settle to the bottom of the containing vessel with the clay, and remain submerged indefinitely. This affinity of oil for clay is, therefore, a constant force acting against movement of the oil from the shales to the sandstones. By what means then has this enormous quantity of oil in sandstones been transported from the shale? Early writers attributed this movement to "hydrostatic pressure." Griswold suggests capillary action and rock pressure as possible causes but dismisses the subject as being of comparatively little significance. In the writer's opinion, this is the greatest and most fatal gap in the anticlinal theory. The problem of providing a clear-cut, definite explanation of this process is especially important since the same agents are very likely responsible for the further collection of the oil into pools within the sandstones.

The anticlinal theory is, therefore, seen to be of questionable value in a theoretical study of oil and gas pools, since the idea of transportation-by-gravity upon which it is based, is without doubt, erroneous. In attempting to secure a truer interpretation of the geologic facts, now clearly established, relative to oil and gas pools, the writer has formulated a tentative working hypothesis which is intended to be especially applicable to the oil and gas pools of the Appalachian region, but which may also be found of value in the study of other fields. It is made up partly of points suggested by other geologists and partly from the result of investigations made by the writer. A brief outline of the essential features of this hypothesis is given below, but for lack of space no attempt will be made to present at this time the facts upon which these deductions are based.

The central idea of this theory is that the principal active agent of oil and gas accumulation is moving water under both hydraulic and capillary pressure. It assumes that oil and gas have originated from organic matter, both animal and vegetal, entombed in the sedimentary rocks when they were deposited. The relative amounts of such matter, doubtless, varied greatly from place to place in different beds; the shales having, as a rule, many times the amount contained in sandstones, and the limestones a greater percentage of animal matter than the shales and sandstones. The amount of organic matter also, doubtless, varied in quantity as well as in character, within the same beds, and in associated beds of similar composition. , The transformation of this organic material took place by slow decomposition and distillation at low temperatures, and by bacterial action in the absence of air, the latter being the principal agent.

The greater portion of this oil was probably produced shortly after the rocks were deposited and when they were still unconsolidated, at which time bacterial action was greatest. The distribution of the oil was probably, in the main, proportional to the amount of organic matter deposited in the various beds, though in areas where physical conditions greatly favoured bacterial action, the reduction of the organic substances was more complete, thereby producing more or less variation in this ratio.

Except in rare instances, the amount of oil produced at any one spot formed a negligible proportion of the rock mass. It was probably distributed as tiny isolated globules throughout enormous quantities of shale, with a relatively small amount in sandstones.

The oil in those limestones that shew evidence of great maceration of the calcareous material before the beds were formed, has probably been obtained either from associated portions of the limestone or from the enclosing shales, and is therefore not indigenous as is the oil in limestone made up largely of shells.

It will be noted that the above premise, relative to origin of oil, varies little from that mentioned earlier in this article as being almost universally agreed upon by geologists. From this premise the following deductions seem logical, as they are in close harmony with the known facts.

The oil generated in the loose mud and sand on the sea bottom very probably come off in microscopic globules. Because of the great affinity of oil for clay, each of these tiny globules immediately after being formed eagerly seized upon the first small particle of clay with which it came in contact and completely enveloped all exposed portions of it. At this stage the shales were soft, unconsolidated beds of mud completely saturated with water, the pores of each tiny particle of clay being filled with water. Globules of oil not closely associated with particles of clay when formed, being lighter than water, probably arose toward the surface. Many of these globules, together with others that were formed in the water, came in contact with and attached themselves to floatiing clay particles and with them slowly sank to the mud below. In time this petroliferous mud became covered by a bed of sand, and this in turn by succeeding beds, until they lay buried probably thousands of feet below the ocean floor.

If it were possible to note the effect of this downward movement upon the oil in a particular bed of mud and the overlying sand, it would be seen that slow compression of both beds would take place, thereby causing considerable reduction of their volume. This reduction would at first affect only the size of the interstices between grains, and would suffice to force out of the beds a certain portion of the water held in them. The water in the shale would take the course of least resistance and travel upward into the sandstone, and in doing so displace an equal amount of water originally held in the sand, which would be forced upward into the overlying bed.

When compression first began in the loose mud the interstitial water probably had ample room for movement between the particles of clay without disturbing the oil. However, as the bed becomes more compact, the particles of clay were pressed more closely together and the oil films surrounding them were brought to occupy a certain portion of the interstices of the shale. Water in the pore spaces of the individual clay particles to which the oil was first attached, still remained undisturbed. This compression of the shales doubtless continued until the oil was confined with water in the interstices of the shale. Under such conditions it could then be torn from its moorings by the upward currents of water through the interstices, and forced along into the sandstone as a more or less complete emulsion of oil and water.

(To be continued.)

The Oil Prospects in Lyon County, Nevada.

AN UNFAVOURABLE GEOLOGICAL REPORT.

The United States Geological Survey has recently made a survey of the regions east of Wabuska and of of Smith's Valley, north of Wellington, at the suggestion of a number of operators in the Western Nevada fields, the result arrived at being one unfavourable to further development of the region. Mr. Robert Anderson was in charge of the investigations, and his report is as under :—

The examination of this region was confined chiefly to the basin-like valley in which the Yerrington Oil and Gas Co. is drilling a well, seven to ten miles east of Wabuska and north of the bend of Walker River. This valley is typical of a number of similar basins that form elbows in the valley of the river. The basin is surrounded by mountains formed of andesite and volcanic agglomerate, fringed with a superficial deposit of incoherent lake sediment along an old terrace level of Lake Lahontan. The basin has a fairly level floor with a surface covering of fine sand and clay. Along the river there are exposures of 20 feet or more of horizontally stratified fine light sand and sandy clay, some of which is cross-bedded. The age of this material is probably Quaternary. These unconsolidated deposits mingled with coarser fragmentary matter, form the floor of the valley. The fact that knolls of the lava which forms the foundation of the valley protude above the floor of the basin, in places very near the river, points to the conclusion that the sediments filling the basin nowhere exceed a few hundred feet in depth. Such being the geologic character of the region, it doubtless contains nothing to warrant the expenditure of money in the search for petroleum, there being no strata that might be expected to yield an appreciable quantity of oil.

Those interested in the drilling operations in this region state that they obtain oil by the chloroform test from the dirt and from the "shale." The lava in the hillocks that rise above the surface of the basin, as above mentioned, has in places a marked platy of cleavage has been taken to be shale. The following log of the well which is being drilled in the centre of the basin was furnished by the Yerrington Oil and Gas Co. :—

	Feet.
Sand and water	40
Blue clay	60
Sand	65
Sand and clay	130
White sand and water	140
Clay	150
Caving sand	240
"Porphyry white" (?)	248
Black rock	262

The hard dark rock at the bottom through which the drill had already penetrated 14 feet, is porphyritic igneous rock, which there is every reason to believe is in place.

Smith's Valley, which is situated in the south-eastern arm of Lyon county, on the border of Douglas county, is typical of the intermontane basins of Nevada. It is a deep elongated valley several miles wide between two north and south mountain ranges, the Pine Nut Range on the west, and the Singatse Range on the east. The latter swings round the north end of the valley at the mining camp named Buckskin, and converges with the Pine Nut Range, narrowing the valley to a defile that leads up to a low pass at its head. The valley opens out somewhat on the south-east toward Wellington, where it is crossed by Walker River, which comes out of a deep canyon at the south end of the Pine Nut Range, and flows through a gap in the Singatse Range on the east.

The Pine Nut Range presents an abrupt escarpment toward Smith's valley all along its straight eastern flank. The range is with little doubt a fault block uplifted along this scarp. No foothills intervene between mountain and plain, but the sharp angle between them is softened by fairly steep slopes of talus and alluvial fan deposits. The range is high and massive. It is composed chiefly of granitic and porphyritic igneous rocks, to judge from the debris deposits at the base.

The Singatse Range on the east side of the valley is of very different character. It is comparatively low, slopes more gently from the valley, and has an irregularly broken topography, and in places pinnacled summits. It is formed chiefly of much-altered limestone intruded by granite and rhyolite and capped with andesite.

The valley floor is remarkably level except where it is encroached upon at the sides by alluvial wash from the mountains and low bluffs of horizontal sedimentary beds. The northern portion of the valley is an inclosed basin, separated by a low rise of ground from the southern portion, which is traversed by Walker River. The drainage of this northern part collects in its centre, and the lowest portion of the floor is usually somewhat marshy and at times covered with a shallow sheet of water.

On the west side of this basin, at the very foot of the Pine Nut Range, there is a large spring of hot water, called Hind's Hot Springs. The water is very pure and leaves no deposit where it issues from the coarse granitic debris at the mountain base. Small streams flow out from it over the meadow. Within a few hundred feet south of the spring cool sulphur water issues from the base of the range, and other springs occur elsewhere along the foot. These springs give additional evidence that the east face of the range is a zone of fracturing and faulting.

At numerous places in the valley springs appear near the outer extremities of the alluvial fans. Well-defined stream courses entering the valley are rare, and the drainage from the mountains reaches the plain through or under the fans. These springs are apt to be marked by small mounds, probably the retention of wind-blown material at these points.

The deposits that are formed on the surface of the floor are mostly fine grained. At several exposures of

Quaternary sand deposits reveal a considerable admixture of manganese oxide, which probably indicate that the valley was marshy in parts when they were formed, as it is to-day. These black deposits have been mistaken by some persons for asphalt. A constant stream of gas issues from the centre of the valley floor at one point. The gas burns readily, and has been taken as another indication of the presence of oil, but it is probably only a variety of marsh gas.

On the east side of the Smith's Valley basin low bluffs rise above the floor at the edge of a wide terrace or plateau that occupies this side of the valley. The terrace is formed of apparently horizontal strata of light-coloured sand and clay, of which a thickness of at least 40 feet is exposed in the bluffs. These beds, doubtless, underlie the valley floor, having originated as a basin filling in late Tertiary or early Quaternary time. A lake may or may not have occupied the valley at the time of their deposition. It is probable that part of the beds at least represent deposits over the valley floor when it was marshy, similar to deposits that are forming now. According to Russell, Lake Lahontan did not extend into Smith's Valley.

The material of these beds is mostly of fine grain, and the stratification massive. Fine sandy clay of light straw colour predominates. It contains a great abundance of well-preserved diatom remains and also many small impressions and filaments of vegetable origin. There are also a few remains like those of marsh grasses. Fragments of fossil bones and teeth of large land animals occur in the sand at the surface of the terrace, having probably weathered out the beds, but nothing identifiable was found.

It is not known what depth is reached by the sedimentary beds just described. That they have, together with the surface deposits, a thickness in this basin of several hundred feet is very probable. The evidences of comparatively recent movements in this region favour the conclusion that the configuration of the basin was determined at no very distant period, geologically speaking, and that the volcanic rocks or older bed-rock series of the original floor underlie the deposits of the basin, filling at a depth of not many hundred feet.

The physical features and geologic character of the region are not such as to favour its selection as a possible petroleum producer, and no indications have been found to lend colour to the view that oil is present.

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NIGERIA BITUMEN CORPORATION, LIMITED.

The Manager's latest report by cable is as follows: — Borehole No. 9: straightening hole, improving; Borehole No. 10: depth, 280 feet; increase, 45 feet. Borehole No. 11: repairing derrick; depth, 438 feet; increase, 3 feet.

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ANGLO-MEXICAN OIL FIELDS, LIMITED.

The Manager's latest report by cable is as follows:— Borehole No. 3: depth, 2,378 feet; increase, 20 feet; formation, hard grey shale. Borehole No. 4: underreaming. Borehole No. 7: depth, 935 feet; increase, 76 feet; formation, soft grey shale.

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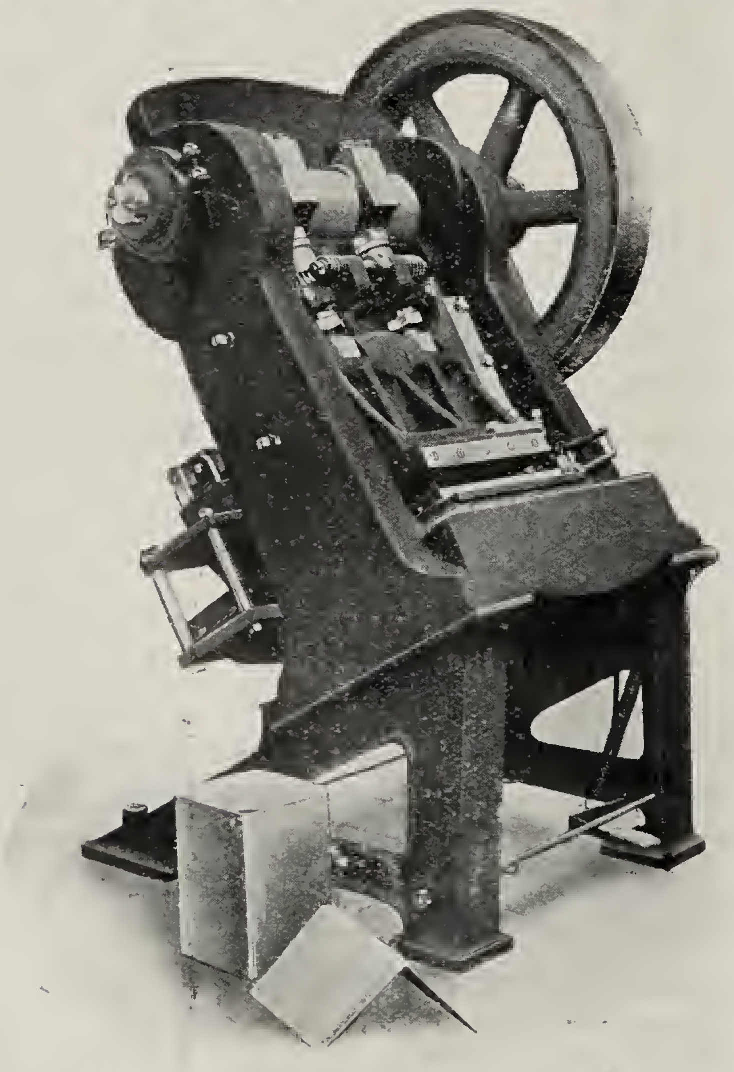
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The American Oil Market.

New York, Week ended Dec. 18th.

The petroleum fields east of the Mississippi River present a fairly active appearance for the season, comparatively little check to operations having been occasioned as yet by the winter conditions. The field situation is all the more favourable by reason of the weakening tendency of crude. The further cut of 5c. in the various Pennsylvania grades previously noted has not involved any other descriptions of crude. The increasing production of Pennsylvania crude and the prospects for a material curtailment in the export trade of American illuminating oil, in the yield of which the Pennsylvania product is by far the most prolific, have apparently lent further justification in reducing the wide margin the higher grades have for many years enjoyed over those of a lower classification. A well of remarkable capacity has been completed in the Shinnston formation during the week, which was in the class of the gusher of a couple of weeks ago. The later completion, says the *Oil, Paint and Drug Reporter*, was reported to have come in at the rate of 1,443 barrels a day and when a deeper sand was reached to have increased its output to 2,112 barrels, having developed a regular flow of about 90 barrels an hour and shewing a steadily increasing tendency. The earlier well of extraordinary capacity, when permitted to give full evidence of its powers with the provision of adequate storage capacity, registered between 125 and 150 barrels an hour, but a later gauge indicated a decline to a little more than 100 barrels an hour. These two exceptional producers were credited with furnishing nearly one-half of the entire output of the Shinnston pool, estimated at about 10,000 barrels a day. The deep sand territory of Perry and Fairfield counties holds the attention of operators, but the recent completions fall below the average of the earlier wells. The usual number of completions is noted in the Lima fields of North-western Ohio and Indiana for the week. The Oakland City district of Indiana is the most prolific development, the four successful wells brought in during the week shewing a daily average total of 330 barrels. Illinois operations have been fairly active, but nothing of an especially interesting character is noted in the week's returns. Lawrence county maintains its lead in new production results and this section promises to retain its place for a long time, owing to the unusual richness of its producing sands. In the Gulf coast fields of Texas and Louisiana there is nothing to eclipse the remarkable producer that was drilled more than a month ago in the Caddo field of Louisiana. A late report gave its capacity as 1,500 barrels a day, and the output for the first thirty days was placed at more than 50,000 barrels. The November review for the Gulf coast region indicates a decrease in production in the Texas end, and a gain in the Louisiana fields, the aggregate falling slightly below the October record. Advices from our California correspondent note the continued favourable status of the industry there.

Refined and Products.—The local market for refined has continued along uneventful lines during the interval and the general tendency on the part of buyers is to restrict operations to a minimum, this policy being dictated by the close of the year as well as the weakening course of crude, as evidenced by the cut of the previous week. A fair volume is represented in our record of clearances from the local part within the interim, shewing a total of 11,455,380 gallons, against 11,759,690 gallons formerly noted. Of the quantity shipped during the week under review, 8,165,000 gallons were carried in bulk. Charter engagemements consummated during the week involved 75,000 cases for four ports on the Syrian coast and 30,000 cases for Lisbon and Oporto, both January shipments from New York.

CLOSING QUOTATIONS.

Crude at the Wells.

The quotations for oil represented by credit balances were :—

	Week ended Dec. 18. 1908.	Week ended Dec. 18. 1909.
Pennsylvania	$1·78	$1·43
North Lima	1·04	0·84
South Lima	0·99	0·79
Indiana	0·99	0·79
Illinois, heavy, below 30 deg. ..	0·60	0·52
Kansas and Indian Ter., 30 deg. and above	0·41	0·35
Heavy	0·28	0·28
Humble, Tex.	0·53	0·75
Saratoga	0·53	0·75
Sour Lake, Tex.	0·53	0·77
Jennings, La.	0·55	0·54
Canadian Oil :—		
Petrolia	1·44	1·24
Oil Springs, less pipeage	1·51	1·31

Refined—For Export.

In cents.	Week ended Dec 18. S.W. 110 test.	W.W. 150 test.
Barrels, cargo .. .. per gal.	8·05	@ 9·55
Philadelphia	8·05	@ 9·55
Bulk, New York	4·55	@ 6·05
Bulk, Philadelphia	4·55	@ 6·05
Cases, New York	10·45	@11·95
Cases Philadelphia	10 45	@11·95

Refined in Cases—110 Fire Test.

	Week ended Dec. 11. 1909.	Dec. 18. 1909
3,000 to 10,000	10·60	10·60
1,000 to 3,000	10·65	10·65

Refined—Jobbing Lots.

In barrels, pkgs. included.

	Week ended Dec. 11.	Dec. 18
130 fire test, S.W.	11¼	11¼
150 fire test, W.W.	11¾	11¾
In bulk from tanks	9	9

Naphtha and Gasolene.

	Week ended Dec. 11.	Dec. 18.
Naphtha, V. M. and P. deod. ..	11	12
Gasolene, 86 deg.	21¾	22¾

Pennsylvanian Oil Runs from December 9th to December 15th were :—December 9th, 186,797* ; December 10th and 11th, 159,544* ; December 12th, 167,256* ; December 13th, 117,832 ; December 14th, 184,895* ; and December 15th, 178,633*.

The Deliveries of Pennsylvanian Oil from December 10th to December 16th were :—December 10th, 205,655* ; December 11th and 12th 321,472* ; December 13th, 211,384* ; December 14th, 198,409* ; December 15th, 230,422* ; December 16th, 197,857*.

* Includes Illinois Oil.

Clearances for the Week.

During the week ended Dec. 17th and since Jan. 1, the clearances of petroleum, in gallons, from the port of New York, were as follows :—

	Week.	Year.	1908.
Refined	11,455,380	567,335,105	593,917,778
Crude	1,750	36,188,920	39,757,420
Naphtha	1,293,310	37,157,540	14,472,190
Residuum ..	446,000	3,069,615	9,425,095

Export Statistics.

The total exports from the port of New York and from the United States have been :—

	Gallons.
From New York, week ended Dec. 17th ..	15,275,590
Total from New York, from Jan. 1st, 1909 ..	809,525,915
Same period last year	844,115,717
Decrease	34,589,802
From United States, week ended Dec. 17th	21,116 414
Total from United States, since Jan. 1st, 1909	1,330,093,236
Same period last year	1,504,903,996
Decrease..	174,810,760

WORTHINGTON & BOLER,
LIVERPOOL, LONDON & GLASGOW.
SEE ADVERTISEMENT ON BACK COVER.

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The "Review" Shipping List.

December 31, 1909.

(*The following abbreviations are used in this table*:—L. Left; P. Passed; Arr. Arrived; Sp. Spoken; Tr. Trading.)
Anglo-American Co.'s vessels marked thus (□): the Anglo-Saxon Co.'s tankers thus (*): and Messrs. Lane and Macandrew's thus (†).

Vessel.	From.	For.	Latest Date and Position.
ALCHYMIST	Groningen	Terneuse	Arr. Dec. 26
ALICE ET ISABELLE (Fr. bq.)	New York	Rouen	In Port, Dec. 11, laid up
AMERICAN	—	—	Tr. b'tw'n N.Y., Philadelphia & Puerto Mexico
APPALACHEE □	Tyne	New York	P. Dunnet Head, Dec. 24
APSCHERON	Ibrail & Rouen	Antwerp	Arr. Dec. 13, in Port, Dec. 28
ARAL	Tyne	Marcus Hook	Arr. Dec. 20
ARAS	Penarth	Port Arthur (Texas)	P. Barry Island, Dec. 22
ASHTABULA □	Taku	Singapore	Arr. about Dec. 15
ASTRAKHAN	Rotterdam	Tyne	Arr. Dec. 22
AUGUSTA	Barry	Port Arthur (Texas)	Arr. Dec. 7
AUGUST KORFF	Philadelphia	Birkenhead & Manchester	L. Dec. 18
AUREOLE	London	Galveston	P. Prawle Pt., Dec. 20
BAKU STANDARD	Cardiff	Tyne	Arr. Aug. 24, in Port, Dec. 28
BALAKANI†	Barrow	Port Arthur (Texas)	L. Dec. 12
BATOUM	London	Port Arthur (Texas)	Arr. Dec. 13, & Sd. Dec. 16
BAYONNE	Philadelphia	Messina & Catania	At Messina, Dec. 22
BEACON LIGHT	Rouen	Newport	Arr. Nov. 1, in Port, Dec. 29
BLOOMFIELD	Manchester	Buenos Ayres	Sd. Liverpool, Dec. 27
BORJOM	—	—	Tr. b'tw'n Black Sea & Levant
BRILLIANT	New York	Alexandria	L. Dec. 23
BRILLIANT (Br. bq.)	New York	Bombay	Arr. Nov. 26, in Port, Dec 2
BRITISH SUN	Emden	Galveston	L. Dec. 24
BROADMAYNE	Tonsberg	Tyne	In Port, Dec. 28
BUFFALO	Hamburg	New York	Arr. Dec. 26
BULLMOUTH*	Freshwater	Yokohama	L. Dec. 7
BULYSSES*	Cardiff	Pulo Samboe	P. Cape Point, about Dec. 17
BURGERMEISTER PETERSEN	Tyne	Philadelphia	P. Dunnet Head, Dec. 24
CADILLAC	Philadelphia	Port Natal	Arr. abt. Dec. 21
CALCUTTA (B. b.) □	San Francisco	Yokohama	L. Oct. 12
CAPTAIN A. F. LUCAS	Savannah	Philadelphia	Arr. Dec. 19
CARDIUM*	Samboe	Europe	At Las Palmas, Dec 27
CARPATHIAN†	London	Port Arthur (Texas)	Arr. Dec. 24
CAUCASIAN†	Dublin	Tyne	Arr. Dec. 7
CHARLOIS	Philadelphia	Rotterdam	Arr. Oct. 19, in Port, Dec. 28
CHESAPEAKE □	New York	Port Natal	L. Dec. 10
CHESTER	Kustendje	Antwerp	P. Constant'ple, Dec. 23
CHEYENNE	Savona	New York	At Bermuda, Dec. 28
CITY OF EVERETT	Newport N'ws	New York	Arr. Dec. 9, in Port, Dec. 18
CIUDAD DE REUS	Cadiz	Bilbao	Arr. Dec. 26, in Port, Dec. 27
CLAM*	Shanghai	Balekpappan	L. Dec. 20
CLEARFIELD	Batoum	Rouen	L. Dec. 23
CONCH*	—	Singapore	Arr. Dec. 18
CONRAD MOHR	Philadelphia	Bergen	L. Dec 20
COWRIE*	Saigon	Singapore	Arr. Dec. 11, and dry docked
CUYAHOGA □	Kustendje	Alexandria	Cld. Constant'ple, Dec. 22
CYMBELINE	Newport	Port Arthur (Texas) & Campana	L. Dec. 9
CZAR NICOLAI II.	Batoum	Hamburg	Sd. Algiers, Dec. 18
DAGHESTAN	Philadelphia	Genoa	Arr. Dec. 26
DAKOTAH □	San Francisco	Hong Kong	Arr. about Dec. 8
DANUBIAN†	Newport Nws.	Eastham	Arr. Dec. 29
DELAWARE □	Barrow	New York	P. Fastnet, Dec. 18
DERBENT	Batoum	Antwerp	P. Constant'ple, Dec. 26
DEUTSCHLAND	Hamburg	New York	P. Lizard, Dec. 24
DIAMANT	Stettin & Tyne	Philadelphia	At Baltimore, Dec. 28
EDWARD DAWSON	Zeebrugge	Hull	Arr. Dec. 24, in Port, Dec. 29
ELAX*	Sabang	Kurrachee	L. Dec. 17
ELISE MARIE	Philadelphia	Swinemunde	P. Dunnet Head, Dec. 26
EL LOBO	Yokohama	Muroran	Arr. Dec. 26
ENERGIE	New York	Flushing	L. Dec. 14
ERIVAN	Batoum	Genoa	L. Dec. 26
ETELKA	Fiume	Pola	Arr. Dec. 14
EUPLECTELA*	Balekpappan	—	L. Dec. 21
EXCELSIOR	Hamburg	New York	P. Lizard, Dec. 21
FRANCE MARIE (French bq.)	Corunna	Santander	Arr. Dec. 20
GEESTEMUNDE	Stettin	Philadelphia	Sd. Tyne, Dec. 23
GENESSE □	Tyne	Philadelphia	P. Dunnet Head, Dec. 19
GEORGIAN PRINCE	Tyne	Kustendje	L. Dec. 14
GOLDMOUTH*	Cardiff	Singapore	P. Las Palmas, Dec. 11
GUTHEIL	Philadelphia	Lisbon	P. Del Break., Dec. 18
H. C. HENRY	Taltal	St. Vincent (C.V.)	L. Nov. 25
HAINAUT (Du. sh.)	Antwerp	New York	P. Ventnor, Dec. 13
HARRY WADSWORTH	Sabine	London	Arr. Dec. 28, and Sd. Dec. 30
HELIOS	Schulau	Philadelphia	Arr. Dec. 27
HERMIONE	Tyne	Rangoon	P. Perim, Dec. 7
HESPERUS	Hamburg	New York	L. Dec. 24
HOTHAM NEWTON	Batoum	London	L. Dec. 21
HYRCANIA	Hull	Batoum	P. Dover, Dec. 29
IOANNIS COUTZIS	Batoum	Marseilles	Cld. Constant'ple, Dec. 20
IROQUOIS □ (towing barge Navahoe)	New York	London	P. Prawle, Dec. 29
J. B. AUG. KESSLER	Karatzu	Europe	At P. Natal, abt. Dec. 24
JAMES BRAND	London	Tyne	Arr. Aug. 27, in Port, Dec. 28, laid up
JOYO MARU	Kustendje	Rouen	Arr. Dec. 27
JULES HENRI (French bq.)	Cette	Marseilles	In Port, Dec. 28
KURA	Philadelphia	Copenhagen	P. Del. Break., Dec. 15
LA CAMPINE	Antwerp	Philadelphia	P. Scilly, Dec. 9
LA FLANDRE	Antwerp	Philadelphia	P. Dover, Dec. 17
LA HESBAYE	Philadelphia	Antwerp	Arr. Nov. 9, in Port, Dec. 28
LACKAWANNA □	London	Hamburg	Arr. Dec. 14, in Port, Dec. 28
LE COQ†	Malta	Bordeaux	L. Dec. 27
LOUTSCH	Marseilles	Odessa	Cld. Constant'ple, Dec. 19
LUCERNA	Novorossisk	Algiers	P. Constant'ple, Dec. 28
LUCIGEN	Trial Trip	Tyne	Arr. Mar. 6, in Port, Dec. 28, laid up
LUCILINE†	—	Batoum	P. Havre, Dec. 24
LUMEN	Calais	Tyne	Arr. Oct. 26, in Port, Dec. 28
LUTETIAN†	Algiers	Bordeaux	L. Dec. 28
LUX†	New York	Alicante	Arr. Dec. 22
MANHATTAN	Portici	—	P. Gibraltar, Dec. 18/9
MANNHEIM	Rotterdam	Philadelphia	Off the Wight, Dec. 23
MARGARETHA	Avonmouth	Philadelphia	P. Barry Island, Dec. 27
METEOR	Batoum	Vladivostock	Cld. Singapore, Nov. 29
MEXICAN PRINCE	Philadelphia	London	P. Del. Break., Dec. 14

Vessel.	From.	For.	Latest Date and Position.
MINA BREA	Caleta Buena	Callao	Arr. and in Port, Dec. 28
MINHLA	Rangoon	Chittagong	L. Dec. 18
MIRA	Calais	Blyth	In Port, Dec. 29, laid up
MUREX*	La Plata	Port Natal	P. Cape Agulhas, about Dec. 28
NARRAGANSETT	London	New York	Sp. Dec. 26 about 51 N., 23 W.
NAVAHOE	London	—	Off Southend, Dec. 22
NEW YORK □	New York	Rotterdam	Arr. Nov. 25, in Port, Dec. 28
NIAGARA	New York	Madras	At Port Natal, Dec. 23
OBERON	San Francisco	Taltal	Sd. P. St. Luis, Dec. 2
OCEAN	Rotterdam	New York	P. Lizard, Dec. 29
OILFIELD	Rouen	Tyne	Arr. Nov. 1, in Port, Dec. 28
ORIFLAMME†	Tyne	Batoum	P. Dover, Dec. 25
OTTAWA □	Philadelphia	London	Arr. Dec. 29
OURAL	Dunkirk	Batoum	L. Dec. 16
PATELLA*	Tyne	Singapore	L. Dec. 24
PAUL PAIX	Kustendje	Calais	L. Dec. 24
PAULA	Hamburg	—	P. Lizard, Dec. 18
PECTAN	Ancon	Pt. San Luis	L. Dec. 5
PENNOIL	Rotterdam	Philadelphia	Arr. Dec. 27
PETROLEINE	Batoum	Cette	Arr. Dec. 27
PHOEBUS	New York	Rotterdam	P. Dover, Dec. 29
PINNA†	Honolulu	Yokohama	Arr. Dec. 22
POTOMAC □	Flushing	Tyne	Arr. Nov. 13, in Port, Dec. 28
PROGRESSO ARGENTINA (Ar. bq.)	Port Arthur (Texas)	Buenos Ayres	L. July 15
PROMETHEUS	New York	Rotterdam	L. Dec. 28
PRUDENTIA	Port Arthur (Texas)	Belfast & Antwerp	Sd. Norfolk (Va.), Dec. 11
PURELIGHT	Hamburg	Philadelphia	Sd. Tyne, Dec. 29
QUEVILLY (Fr. bq.)	Rouen	Havre	Arr. Nov. 20, in Port, Dec. 27
RENDOVA (Br. bq.)	Bonanza	Sydney	Sp. Oct. 31, 19 N., 25 W., "All well"
RION	Amsterdam	Blyth	Arr. Dec. 21, in Port, Dec. 28
ROCK LIGHT†	Newport Nws.	Sunderland	L. Dec. 20
ROMANY*	Samboe	Bombay	Arr. Dec. 20
ROTTERDAM	Amsterdam	New York	Arr. Dec. 26
ROUMANIAN†	Port Arthur (Texas)	Antwerp	L. Dec. 28
RUSSIAN PRINCE	Thameshaven	Liverpool	Arr. July 4, in Port, Dec. 29
SALAHADJI*	Singapore	Balekpappan	L. Nov. 11
SAN ANTONIO	London	Puerto Mexico	L. Dec. 13
SAN IGNACIO DE LOYOLA (Sp. bq.)	Pasages	New York	L. Oct 23
SANTA MARIA	Pt. San Luis	Taltal	L. Nov. 25
SANTA RITA	San Francisco	Honolulu	L. Dec. 20
SARANAC □	New York	Liverpool	Arr Dec. 27, in Port, Dec 29
SAXOLEINE	Kustendje	Rouen	P. Constant'ple, Dec. 23
SCHUYLKILL	Shanghai & Cebu	New York	Arr. Dec. 17
SEMINOLE □	San Francisco	Japan	L. Dec. 8
SERVIAN†	Philadelphia	London	Arr. Dec. 29
SNOWFLAKE	Cette	Newport	Arr. Oct. 22, in Port, Dec. 29
SOYO MARU	Yokohama	Payta	L. Nov. 3
SPONDILUS*	New York	Bombay	Arr. Dec. 23
STANDARD	Tyne	Philadelphia	L. Dec. 17
STROMBUS*	Samboe	Rotterdam	Arr. Dec. 23, in Port, Dec. 28
SULTAN VAN LANGKAT*	Soesoe	Singapore	Arr. Nov. 27, and Sd. Nov. 28, on return
SUNLIGHT (Br. bq.)	Port Arthur (Texas)	Avonmouth	Arr. Dec. 17, in Port, Dec. 21
SURAM	Tyne	Port Arthur (Texas)	P. Dover, Dec 12
SUWANEE □	Manchester	Batoum	Cld. Constant'ple, Dec. 23
SVIET	Galatz	Rotterdam	At Flushing, Dec. 28
TAMARAC □	London	Philadelphia	Arr Dec. 24
TELENA*	Kustendje	Rotterdam	P. Constant'ple, Dec. 23
TEREK†	Port Arthur (Texas)	London	L. Dec. 22
TEXAS	New Orleans	Port Arthur (Texas)	Arr. Nov. 13
TIFLIS	Liverpool	Manchester	P. Eastnam, Dec. 29
TIOGA □	Liverpool	New Orleans	At Bermuda, Dec. 29, for coal
TONAWANDA □	Barrow	London	Arr. Dec. 20, in Port, Dec. 29
TRINCULO	San Francisco	Tocopilla	L. Dec. 13
TROCAS*	Balekpappan	Shanghai	L. Dec. 15
TUSCARORA	Hamburg	Bremerhaven	Arr. Dec. 28
VEDRA	Liverpool	Port Arthur	Arr. Dec. 29
VILLE DE DIEPPE (Nor. bq.)	Philadelphia	Rouen	Arr. Sept. 7
VOLUTE*	Freshwater	Kobe	L. Dec. 18
WASHINGTON	Philadelphia	Hamburg	P. Del. Break., Dec. 17
WASHTENAW	San Francisco	Seattle	S. Port San Luis, Dec. 7
WEEHAWKEN	Hull	Tyne	Arr. Nov. 28, in Port, Dec. 28
WILLKOMMEN	New York	Stockholm	P. Dunnet Head, Dec. 26
WINNEBAGO	Balekpappan	New York	At P. Natal, abt. Dec. 24

Latest Market Intelligence.

LONDON OIL MARKET.

Supplied by Messrs. Benjamin & Gee, 31, St. Mary Axe, E.C.

Dec. 3 st, 1909.

The prices of Refined Petroleum remain the same as last reported, namely:—Russian, 5¾d.; Roumanian, 7d.; American, 6d.-6¼d.; Water White, 7d.-7¼d.

LUBRICATING OILS.

Following are the current quotations:—

American pale, £6 10s. to £10 10s.
American dark cylinder, from £7 12s. 6d.
American filtered cylinder, from £10 12s. 6d.
No. 1 Russian, for Spot, £8 2s. 6d.

TURPENTINE.

American Turpentine has been a much firmer market, prices are as follows:—American Spot 40s. 1½d., Jan.-April 40s. 7½d.

LIVERPOOL OIL MARKET.

Dec. 31st.

Refined oils are quiet, and sellers quote 6¾d., for Russian, Galician or Roumanian; and 7¼d. to 8¼d. per gallon for American.

GERMANY.

Hamburg, Dec. 30th.

American, ·800–6·30 marks; Pennsylvanian, 6·40 marks; Galician, 6·30 marks. Russian and Roumanian not on the market.

LATEST AMERICAN PRICES.

New York, Dec. 30th.

Refined, in cases, is steady at 10·45; Standard White, 8·05; Credit balances, 1·43.

Philadelphia, Dec. 30th.

Standard White is now quoted at 8·05.

RUSSIA.

Baku, Dec. 28th.

Prices are lower. Crude oil, spot, 19¼ copecs per pood. Kerosene, in waggons, 24½ copecs; forward delivery 27 copecs.

BELGIUM.

Antwerp, Dec. 30th.

The petroleum market is without change. Price of Standard White, spot, 22·50 francs per 100 kilos.

ROUMANIA.

Dec. 29th.

	Francs.
Crude oil from different fields, including pipe line charges, per 100 kgs.	3·60–3·70
Refined oil, exclusive of taxes, ex. refinery	8·30
Residuals in tank waggons, at refinery	3·40–3·50
Paraffin	110–120
Prices for Export.	
Refined oil, f.o.b., per 100 kgs.	6·75–7·00
Benzine, sp. gr. 0·710–0·715, f.o.b.	16–17
„ sp. gr. 0·715–0·720 „	14·50–15·50
„ sp. gr. 0·730–0·740 „	10–11
„ sp. gr. 0·745–0.755 „	9–10
Lubricating, horticultural	32
„ prime	35
„ extra	40
„ Royal, "Steaua Romana"	45
Imperial "Aurora"	45
Vacuum-Ideal "Vega"	52

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IMPORTS of PETROLEUM into UNITED KINGDOM

Specially prepared for this Journal by the Custom House.

FOR THE WEEK ENDED DECEMBER 20TH, 1909—

DATE.	PORT AND IMPORTERS.	DESCRIPTION.	NO. OF GALS.	PORT WHENCE.
Dec.	LONDON—			
14	Fielder, Hickman and Co.	Lub.	24,800	New York
14	,,	Lub. Oil and Gr.	3,320	,,
14	Page, Son and East	Lub. Oil and Gr.	560	Antwerp
14	Port of London Authority	Lub.	2,600	New York
14	Livett Frank and Son	,,	1,600	,,
14	Langley, Smith and Co.	,,	2,400	,,
15	Anglo-American Oil Co.	,,	46,000	,,
15	G and H. Green	,,	4,240	,,
15	Produce Brokers	,,	4,800	,,
15	A. Brown and Co.	,,	4,800	Philadel,
15	Mercantile Lighterage Co.	,,	32,200	New York
15	Schlieman's Oil Co.	Lub. Gr.	2,600	Philadel.
15	,,	Lub.	2,750	Hamburg
15	,,	Lub. Gr.	200	,,
15	H. and G. Dutfield	,,	1,430	New York
1/12	Argo Steamship Co.	Lub.	400	Bremen
16	Port of London Authority	,,	400	Hamburg
16	Anglo-American Oil Co. (Narragansett)	Lamp	2,041,860	New York
16	,, ,,	Lub.	562,770	,,
16	,, ,,	Lamp	32,000	,,
16	,, ,,	Lub.	154,640	,,
16	Argo Steamship Co.	,,	310	Bremen
16	G. and H. Green	,,	500	New York
16	Beck and Pollitzer	,,	2,000	,,
16	J. Harrison	Lub. Gr.	1,450	Antwerp
16	Anglo-American Oil Co.	Lub.	44,000	Philadel.
17	Mordaunt Bros.	,,	5,450	,,
17	T. H. Lee	Lub. Gr.	410	Hamburg
17	Mordaunt Bros.	Lub.	2,700	Baltimore
17	Page, Son and East	Lub. Oil and Gr.	80	Antwerp
17	British and Foreign Wharf	Lub.	200	,,
18	Worthington and Boler	,,	3,800	Philadel.
18	Port of London Authority	Lub. Gr.	280	New York
18	,,	Lub.	3,480	Hamburg
18	Anglo-American Oil Co. (Harry Wadsworth)	Gas	788,560	Sabine
18	H. P. Wheatley and Co.	Lub.	1,800	Philadel.
18	Beck and Pollitzer	,,	1,200	New York
20	Produce Brokers' Co.	,,	2,600	Baltimore
20	Mordaunt Bros.	,,	4,200	New York
20	Snowden, Sons and Co., Ltd.	,,	2,660	Philadel.
20	T. H. Lee	,,	470	Hamburg
20	Page, Son and East	Lub. Oil and Gr.	160	Antwerp
20	Scott's Wharf	Lub.	4,000	New York
20	J. Harrison	Lub. Oil and Gr.	750	Antwerp
16	Asiatic Petroleum Co.	Benzine	6,000	Rotterdam
	LIVERPOOL—			
14	Ismay, Imrie and Co.	Lub.	1,000	New York
14	Huxley and Co.	,,	4,120	Hamburg
14	,,	,,	800	Philadel.
14	,,	,,	1,120	New York
14	Vacuum Oil Co.	Lub.	25,080	New York
14	,,	,,	2,980	,,
14	,,	,,	10,920	,,
14	,,	,,	5,400	,,
14	J. Light and Son	,,	2,000	,,
14	,,	,,	1,960	,,
14	Liverpool Storage Co.	,,	5,400	,,
14	D. Owen and Son	,,	1,360	,,
14	,,	,,	3,650	,,
15	Ismay, Imrie and Co.	,,	57,510	,,
16	Herbert Roberts and Co.	,,	450	,,
16	W. H. Samuel and Co.	,,	1,140	,,
16	W. Gibson and Sons	Lamp	1,030	Boston
16	G. B. Taylor	Lub.	61,960	New York
16	D. Currie and Co.	Lub. Gr.	170	Hamburg
16	A. Hopps and Sons	Lub.	10,680	Baltimore
16	Cunard Steamship Co.	,,	100,800	New York
17	,,	,,	23,690	,,
17	Huxley and Co.	,,	4,140	Hamburg
17	J. Light and Son	,,	400	Riga
17	Meade-King, Robinson & Co.	Lub. Oil and Gr.	10,400	Baltimore
18	A. Hopps and Sons	L.Resid.	5,410	Newp't Nws.
7/12	Anglo-American (Aug. Korff)	Lub.	11,800	Philadel.
20	C. W. Field and Co.	,,	210	Antwerp
20	W. Gibson and Sons	Lamp	2,050	Boston
20	Pickfords, Ltd.	Lub.	420	Hamburg
20	,,	L.Paste	120	,,
20	Cunard Steamship Co.	Lub.	41,360	New York
	BOSTON—			
20	W. F. Beaumont	,,	230	Hamburg
	BRISTOL—			
14	Spillers and Bakers	,,	1,000	New York
16	British Pet. Co. (Sunlight)	Lamp	546,000	Pt. Arthur
16	W. G. Clarke	Lub.	560	Antwerp
16	,,	,,	600	,,
16	E. Stock and Sons	Lub. Gr.	150	Hamburg
17	Anglo-Bosphorus Oil Co.	Lub	3,000	Antwerp
18	Pickfords, Ltd.	Lub. Oil and Paste	1,300	Hamburg
	CARDIFF—			
15	Bristol Steam Nav. Co.	Lub.	140	,,
	GRIMSBY—			
14	J. Sutcliffe and Son	,,	140	Antwerp
14	,,	,,	500	,,
	HARWICH—			
18	D. Howard	,,	190	,,
	HULL—			
14	Wilsons and N.E. Co.	Lub. Gr.	1,480	Hamburg
14	,,	,,	1,120	Antwerp
25/11	T. Wilson, Sons and Co.	C.Naph.	1,200	St.Petersbrg.
16	W. Gilyott and Co.	Lub.	116,200	New York
16	Wilsons and N.E. Co.	,,	880	Antwerp
16	T. Wilson, Sons and Co.	Mot.Spirit and Gasolene	200	New York
17	Hull & Netherlands SS. Co.	Lub.	160	Rotterdam
20	T. Wilson Sons and Co.	,,	80	Riga

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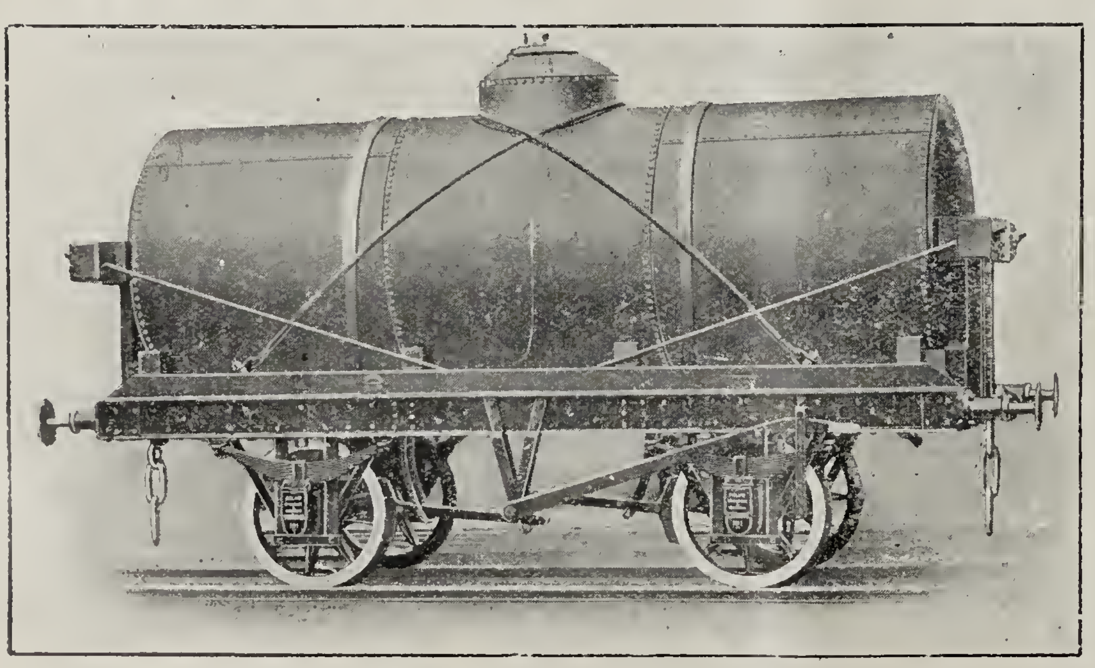

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IMPORTS.—(*Concluded*).

DATE. Dec.	PORT AND IMPORTERS	DESCRIPTION.	NO. OF GALLS.	PORT WHENCE.
	MANCHESTER—			
14	Worthington and Boler	Lub.	840	Philadel.
14	C. H. Morton and Son	,,	2,600	,,
14	,,	,,	3,000	,,
14	Crew, Levick and Co.	,,	10,280	,,
14	G. B. Taylor	,,	9,040	,,
16	D. Currie and Co.	,,	120	Hamburg
18	J. T. Fletcher and Co.	,,	780	Antwerp
20	Bramwell, Fern and Co.	,,	1,220	New York
20	Liverpool Storage Co.	,,	23,700	,,
	NEWPORT—			
20	M. Jones and Co.	Lub. Gr.	60	,,
	PLYMOUTH—			
14	Bristol S. Navigation Co.	Lub. Oil and Gr.	520	,,
	SOUTHAMPTON—			
17	White Star Line	Lub.	13,740	New York
	SWANSEA—			
17	Bristol Steam Nav Co.	Lub. Gr.	80	Antwerp
17	Richards, Turpin and Co.	Lub.	1,600	New York
	DUNDEE—			
16	D. Alexander and Sons	,,	2,200	Hamburg
	GLASGOW—			
14	Clyde Shipping Co.	Lub. Gr.	420	Antwerp
16	Allan Bros., Ltd.	Lub.	7,250	Philadel.
16	,,	M. Colza	1,500	,,
16	,,	Lub.	39,800	,,
16	,,	Lamp	1,890	,,
20	Anchor Line	Lub.	33,720	New York
	LEITH—			
13	W. Graham-Yooll and Co.	Lamp	4,360	Hamburg
13	,,	,,	8,720	,,
13	J Currie and Co.	Lub.	120	,,
17	,,	,,	780	,,
17	W. Graham-Yooll and Co.	Lamp	4,360	,,
18	,, ,,	,,	4,360	,,
	BELFAST—			
10	G. Heyn and Sons	Lub.	400	Riga
17	J. C. Pinkerton and Co.	,,	280	Hamburg
	CORK—			
17	Palgrave, Murphy and Co.	,,	80	,,
	Total for the Week		5,055,910	

Deduct to correct—

	LIVERPOOL—			
24/11	Anglo-Amer. Oil Co. (Tioga)	Gas	29,000	Philadel.
9/11	Meade-King, Robinson & Co.	Lub.	20,800	Hamburg
7/12	Anglo-American (Aug. Korff)	Lamp	6,300	Phiadel.
	MANCHESTER—			
10/12	C. H. Morton and Son	Lub.	720	Hamburg

FOR THE WEEK ENDED 27TH DECEMBER, 1909—

DATE. Dec.	PORT AND IMPORTERS.	DESCRIPTION.	NO. OF GALLS.	PORT WHENCE.
	LONDON—			
21	Ragosine and Co.	Lub.	4,220	Philadel.
21	Juett and Cain	,,	17,480	,,
21	B. Jacob and Son	,,	3,600	,,
21	R. Park and Co.	,,	160	Marseilles
21	Bowring Petroleum Co.	,,	4,730	Philadel.
21	Union Lighterage Co.	,,	2,000	Antwerp
21	Monogram Oil Co.	Lub. Oil and Gr.	4,890	New York
21	A. Brown and Co.	Lub.	3,600	Philadel.
22	Anglo-American Oil Co.	,,	55,000	New York
22	,,	,,	54,000	Philadel.
22	A. Brown and Co.	Lamp	4,250	,,
22	Mercantile Lighterage Co.	Lub.	21,790	,,
22	Produce Brokers' Co.	,,	2,600	,,
22	Page, Son and East	,,	720	Antwerp
23	T. H. Lee	,,	590	Hamburg
23	Anglo-American Oil Co. (Ottawa)	Gas	966,810	Philadel.
23	Snowdon, Sons and Co.	Lub. Gr.	2,550	New York
23	Mercantile Lighterage Co.	Lub.	33,550	,,
23	British Pet. Co. (Servian)	Lamp	875,000	Philadel.
23	,, ,,	Gas	812,000	,,
24	A. Brown and Co.	Lub.	80	Hamburg
24	,,	,,	2,400	Philadel.
	LIVERPOOL—			
21	Vacuum Oil Co.	,,	24,160	New York
21	,,	,,	220	,,
21	Fellowes, Morton & Clayton	,,	1,250	,,
21	E. H. Kellogg and Co.	,,	6,400	,,
21	C. C. Wakefield and Co.	Lub. Gr.	450	Antwerp
22	W. B. Dick and Co.	Lub.	16,300	New York
22	G. B. Taylor	,,	58,960	,,
22	,,	,,	31,100	,,
22	J. T. Fletcher and Co.	Lub. Gr.	140	Antwerp
23	Crew, Levick and Co.	Lub.	2,050	Hamburg
23	D. Currie and Co.	,,	660	,,
23	Meade-King, Robinson & Co.	,,	2,600	Baltimore
23	,,	,,	9,800	Philadel.
23	,,	Benzine	50,000	Rotterdam
24	American Line	Lub.	5,940	Philadel.
24	Crew, Levick and Co.	,,	13,370	,,
24	,,	M. Colza	9,440	,,
24	W. B. Dick and Co.	Lub.	21,220	,,
24	J. Light and Son	,,	2,000	Hamburg
24	J. T. Fletcher and Co.	Lub. Gr.	40	Antwerp
	BRISTOL—			
21	Colhurst and Harding	Lub.	2,000	New York
21	H. R. James and Co.	,,	10,000	,,
22	Ford and Canning	,,	2,600	,,
22	J. and R. Bush	,,	53,200	,,
22	,,	Lamp	240	,,
22	Collins and Partners	Lub.	600	,,
23	First Anglo-Russian Oil Co.	,,	2,920	,,
23	H. R. James and Sons	,,	4,800	,,
24	E. Stock and Sons	L. Paste	200	Hamburg
	GOOLE—			
24	Lancs. and Yorks. Railway	Lub.	160	,,
	GRIMSBY—			
21	J. Sutcliffe and Son	,,	110	Antwerp
	HARWICH—			
21	Great Eastern Railway	,,	210	,,
	HULL—			
21	Raines, Porter and Seddon	,,	1,000	New York
21	Wilsons and N.E. Co.	,,	1,400	Hamburg
21	T. Wilson, Sons and Co	,,	54,240	New York
24	W. Gilyott and Co.	,,	45,160	,,
	MANCHESTER—			
21	D. Currie and Co.	,,	800	Hamburg
21	G. B. Taylor	,,	108,440	New York
22	D. Currie and Co.	,,	90	Hamburg
22	J. T. Fletcher and Co.	,,	80	Antwerp
24	Pickfords, Ltd.	,,	160	Hamburg
24	D. Currie and Co.	,,	120	,,
24	British Pet. Co. (Danubian).	Gas	847,000	Pt. Arthur
	MIDDLESBRO'—			
21	E. Harris and Co.	Lub	2,000	Antwerp
	NEWCASTLE—			
22	Tyne-Tees S.S. Co.	Lamp	6,000	Hamburg
22	,,	Lub.	40	,,
22	P. H. Matthiesson and Co.	,,	520	Bergen
22	Tyne Tees SS. Co.	,,	520	Antwerp
	ABERDEEN—			
21	R. Connon Reid and Co.	Lamp	2,080	Hamburg
21	,,	Lub.	80	,,
	GLASGOW—			
21	Allan Bros. and Co.	,,	760	Boston
21	Clyde Shipping Co.	Lub. Gr.	160	Antwerp
23	Burrell and Son	Lub.	4,000	Trieste
27	Anchor Line	,,	24,320	New York
	GRANGEMOUTH—			
22	J. Currie and Co.	,,	1,240	Hamburg
22	W. Graham-Yooll and Co	Lamp	8,000	,,
27	,,	,,	12,000	,,
27	J. Currie and Co.	Lub.	2,280	,,
	LEITH—			
21	J. Currie and Co.	,,	840	,,
21	W. Graham-Yooll and Co.	Lamp	4,360	,,
21	G. Gibson and Co.	Lub.	1,400	Antwerp
23	W. Thomson and Co.	,,	3,500	Trieste
23	G. Gibson and Co.	,,	4,240	Antwerp
	BELFAST—			
22	J, C. Pinkerton and Co.	Lub. Gr.	90	,,
22	British Pet. Co. (Danubian).	Lamp	938,000	Pt. Arthur
	Total for Week		5,280,060	
	Total for the Fortnight		10,335,970	

Deduct to Correct—

	MANCHESTER—			
23/11	Anglo-American Oil Co. (Tioga)	Gas	78,060	Philadel.
29/11	,, (Suwanee)	Lamp	13,510	,,

The Petroleum Review.

By PAUL DVORKOVITZ.

Vol. XXII. *(New Series.)* JANUARY 15TH, 1910. No. 468

THE PETROLEUM REVIEW:

The ANNUAL SUBSCRIPTION for both English and Foreign readers is 26s., including Postage. Single Copies may be had at the offices at 1s.

The Editor would esteem it a favour if readers, when communicating with the various firms advertising in our pages, would mention the "Review."

Contributions upon items of interest are always welcomed from subscribers, but in each case these should be accompanied with the name and address of the sender, not necessarily for publication.

Editorial Notes.

To Facilitate Maikop Transfers: an Important Amendment.

An important amendment to the laws effecting the transfer of land belonging to the Kuban and Tersky Cossacks, which embraces the whole of the Maikop field, has recently received Imperial sanction, and has now become operative. Until the present time, "otvods" (the final selection of 27 acres from the 100 acres originally granted) could not be transferred from one person to another except after the expiration of two years, and then only with the permission and consent of the Department of the Cossacks. Now, however, the new law stipulates that the claims for the exploitation of petroleum upon concessions belonging to the Cossacks can be made by simply filing details of the land transferred, and the names of the parties to the transfer, at the Department of the Cossacks. The importance of this amendment cannot be over-estimated, for it is bound to give a great impetus to Maikop petroliferous transfer, especially in England, where at the present time numerous deals are on foot.

Our Diagrams of Oil Prices.

Upon other pages of this issue our readers will find two interesting diagrams which shew at a glance the prices of American and Russian oil upon the English markets during the past year, the price of Pennsylvanian crude in America, and the quotations for Russian crude oil at Baku for the same period, these details appearing side by side with those for the corresponding twelve months of 1908. It will be noticed that in each case the prices for the twelve months just closed compare very unfavourably with those for 1908, the greatest fluctuations having occurred in the prices of Russian crude at Baku. We hope to dwell at length upon the financial aspect of the situation in the large producing countries in our next issue, when special retrospects will appear concerning the past year in some of the most important oil fields of the world.

The Dutch Market during 1909.

That a decidedly healthy tone has permeated the Dutch share market during the past year is evident by a glance at the quotations for the various petroleum companies to-day, and comparing them with the figures that rules exactly a year ago. Speaking generally, it can be said that most substantial advances have taken place all round, as may be seen from the quotations here given of a few of the more representative oil companies listed.

	Quotations (per cent.) in Jan., 1909.	Quotations (per cent.) in Jan., 1910.
Dordtsche Pet. Mij. (Ordinaries)	150	175
Int. Rum. Pet. Mij.	18½	27½
Koninklyke Neder. Pet. Mij.	320	443½
,, ,, Share Certs.	317¼	443½
Mœara Enim. Pet. Mij.	149	196
Oklahoma Pet. Co.	102½	130
Panolan Mij. Certs.	265	325
Perlak Pet. Mij. 6% Cum. Prefs.	133	141
Sumatra-Palembang Pet. Mij.	118	167
Tarakan Pet. Mij.	28¾	83¾
Zuid Perlak Pet. Mij.	137½	189½

From the above, the plain inference is that the oil boom which has been experienced on the English market for the past few months, is totally eclipsed by the almost remarkable rise of Dutch petroleum investment values all round.

America's New Oil Territories.

The chief interest now taken in the American fields, exclusive of California, centres round the three or four new gusher territories that have been discovered within the past few months. One of these is in West Virginia, and known as the Shinnston Pool, the second is the Preston Pool, in Oklahoma, the third is the new prolific territory in Louisiana, and the development of the new sands in Illinois may be said to constitute a fourth. In at least two of these districts recent wells have been brought in, good for 2,000 barrels per day, while, now that the drill is being sent down with all possible speed, it is very probable that in a very short time the production from these latest discoveries will greatly augment the present production of crude oil in America. When it is recollected that to-day there must be over 100,000,000 barrels of oil above ground in America, the vast importance which the refining and exporting branch of the industry plays in regard to the maintenance of America's supremacy as a petroleum-producing and exporting country must be self-apparent.

THE COMMONWEALTH OIL CORPORATION, LIMITED.

It will be remembered that some time ago Sir Ernest Spencer, the deputy chairman of the Commonwealth Oil Corporation, Ltd., and Mr. Alexander Mackay, one of the members of the board, visited Australia, in order to closely inspect the properties of the Corporation in New South Wales.

Both gentlemen have now presented a full report of their impressions to the board, which report may be said to be distinctly favourable.

The main conclusions given in this report are as under:—

1. That the corporation possesses a shale and coal property of great extent and of proved value.
2. That the railway is well constructed and admirably adapted in a very difficult country to carry our traffic.
3. That the works as planned and partially erected are properly placed, comprehensive in design, and fitted to accomplish what is intended and required.
4. That Australia offers a good and sufficient market for the products of the corporation at fair prices.
5. That with prudent business management the success of the corporation should be assured.

We officially learn that a notice will shortly be sent to the shareholders convening the adjourned annual general meeting, and then a full statement will be made as to the position of and outlook for the corporation.

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◆

THE TIN PLATE MARKET.

Messrs. Norton, Owen & Co., of 4, Bishopsgate Street Within, London, E.C., report under date January 14th, 1910, as follows: —

Since our last report raw materials have advanced. The tin plate market is firm with an upward tendency, and we make prices of oil sizes to-day as under:—

IC	18¾ × 14	124 sheets	110 lbs.	13/3 to 13/4½	per box.
IC	19¼ × 14	120 ,,	110 ,,	13/3 to 13/4½	,,
IC	20 × 10	225 ,,	156 ,,	18/6 to 18/7½	,,

F.o.b. Wales. Tin lining and iron hooping extra.

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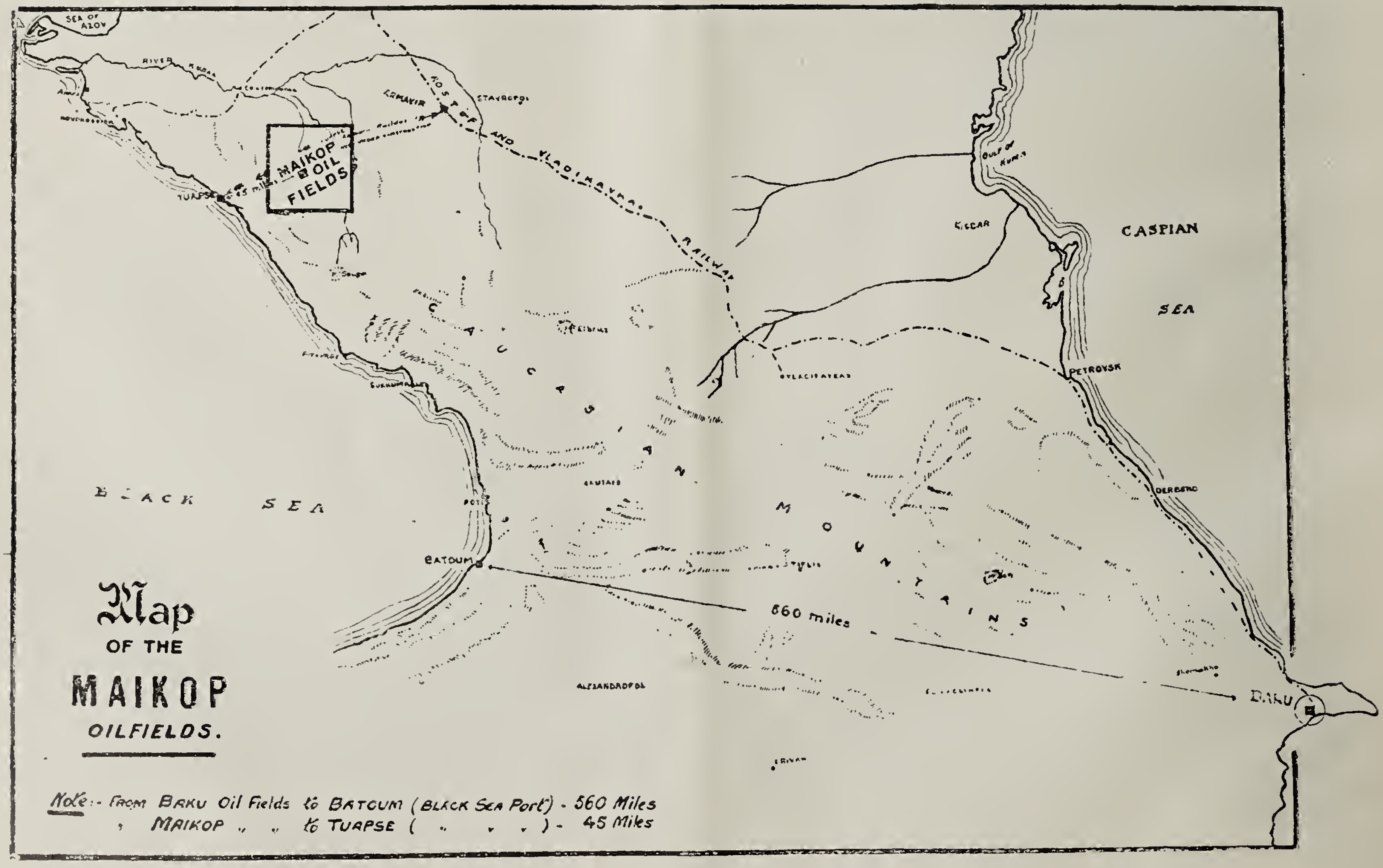
The Situation of the Maikop Oil Fields.

In view of the great interest which is being taken in this country with regard to the Maikop oil fields, we herewith reproduce a sketch map which shews the immensely advantageous position in which these uew territories are situated, when compared with their older rivals—Baku.



. . To Facilitate the Export of Russian Kerosene. . .

IMPORTANT CONFERENCE AT ST. PETERSBURG.

As briefly announced in the last issue of the Review, an important conference has recently concluded its sittings in St. Petersburg, which conference has had for its object the hearing of evidence for and against a suggested reduction in the freight rates for kerosene from Baku to Batoum.

The conference, which has been talked of for a long time, was under the presidency of General Shaposhnikoff, a member of the Tariff Committee of the Minister of Finance, the chief witnesses on behalf of the petroleum industry, which is urging the advisability of considerably reducing the freight rates being Mr. P. O. Goukassow and Mr. E. L. Nobel.

The sittings opened on December 31st (n.s.), when Mr. P. O. Goukassow expressed his views as to the present condition of the Russian export kerosene trade. He was convinced that Russia at present could not come forward as an independent exporter on the European markets. The enormous expenditure which the kerosene exporters had incurred in the organisation of the marketing arrangements for Russian kerosene in Europe had to be considered as almost lost, for at present they could only deal in Russian kerosene in Europe by selling to the organisations which had already secured the European kerosene markets. With regard to the Eastern markets, there was enormous competition amongst the sellers, especially in American and other kerosenes. At present, Russian kerosene for export had to pay a 19-copec rate from Baku to Batoum, and this charge was altogether too excessive. He thought it ought to be reduced to ten or eleven copecs per pood at the maximum, and it was only under such conditions that the export of Russian kerosene could be increased to the extent of 50,000,000 or 60,000,000 poods per annum.

There was, continued Mr. Goukassow, an impression in some quarters that the development of the export trade of Russian kerosene might have an influence upon the price which the Russian consumer in the interior would have to pay, but by statistics he shewed that such a contention was quite absurd. On the contrary, by reducing the possibility of export, it naturally created a reduction in the production of crude oil, and thus the consumer would be compelled to pay enhanced prices.

The sittings of the Committee were continued the following day when several other representatives of the Russian petroleum industry expressed their views to the Committee. They pointed out that the self cost of Russian kerosene in Baku was about 30 copecs per pood, whereas the selling price of export kerosene at Batoum could not be more than 42 copecs per pood. Thus even with a 12-copec railway rate from Baku to Batoum, including the incidental expenses, no profit would be left for the refiner. They were convinced that it was absolutely essential that the export of Russian kerosene should be cultivated, for the reason that the Russian demand for kerosene did not exceed 50,000,000 poods per annum. If the export of kerosene increased, the result would be that the production of crude oil at Baku would likewise be augmented, and this would indirectly reduce the price of kerosene to the consumer in the interior of Russia. The witnesses expressed the opinion that it was owing to the high rates charged for the transport of the kerosene from Baku to Batoum that the Russian export trade was being killed. It was, therefore, necessary to take drastic steps in order to prevent the export trade permanently leaving Batoum.

Mr. E. L. Nobel (Messrs. Nobel Bros.), expressed as his firm conviction that the demand for mazout in Russia would continue to decrease, mainly owing to the popularity of the Diesel engines, which were now being introduced upon a very large scale. In Russia at the present time the horse-power of those Diesel engines was not less than 200,000.

Several representatives of shipowners on the Volga were called before the Committee, giving evidence to the effect that under no circumstances could the export of Russian kerosene be supported, as it would have the effect of increasing the price of petroleum products in the interior, which market, even at the present time, they argued, was not supplied with sufficient petroleum products.

A representative of the Baku-Batoum railway line pointed out that, in his opinion, a rate of 16 copecs for export kerosene would meet the case.

The sittings then concluded, the President stating that he would place the views expressed before the Tariff Committee, which would then give a decision upon the subject.

DETAILS OF BAKU PRODUCTION DURING OCTOBER, 1909.

The following are the details of the production of crude oil at the Baku oil fields during October, as published in the latest issue of the *Neftiannoie Dielo* (in poods): —

		Production (in poods).				
	Number of Wells in Exploitation.	By Baling.	By Spouters.	Casual.	Total.	Average per Well per Day.
Balakhany	771	6,313,651	—	3,864	6,317,515	275
Saboontchi	853	17,733,304	—	283,843	18,017,147	712
Ramany	206	6,997,984	92,000	25,466	7,115,450	1,161
Bebe-Aibat	270	9,628,001	766,700	6,837	10,401,538	1,349
Total for October, 1909	2,100	40,672,940	858,700	320,010	41,851,650	673
,, ,, 1908	1,922	39,038,282	653,857	335,499	40,047,638	697

During October the production from spouters was obtained from the following wells:—

			Poods.
At Ramany	By the Moscow Caucasian Co.	From Well No. 52	92,000
,, Bebe-Aibat	,, Caspian and Black Sea	,, ,, No. 35	158,200
,, ,, ...	,, ,, ,, ...	,, ,, No. 45	187,000
,, ,, ...	,, ,, ,, ...	,, ,, No. 42	421,500

INTERESTING DETAILS CONCERNING WELLS IN THE ROUMANIAN FIELDS.

To-day there are almost 800 productive oil borings in the Roumanian fields, and about 600 productive hand wells. The greater portion of the borings are in the Prahova district, where there are now 640 borings in active production, and of this number 456 are in the Bustenari valley. Taking the Prahova district, as a whole, the greatest number of borings belong to the Steaua Romana, who possess 104 at Bustenari-Calinet, and 84 productive borings at Campina, but the Concordia operate the greatest number of productive borings in the Bustenari region, their number being to-day 144. No less than 243 borings are now being put down, while 394 is the number of abandoned wells in the Prahova field.

There are 152 productive hand-dug wells in the Prahova district, and 524 have been abandoned, while 58 are now either under repair or being dug. The Concordia owns the greatest number of productive hand wells in Bustenari, but in that region the greatest number of abandoned wells (86) belong to the Steaua Romana.

In the district of Buzeu, the Steaua Romana, while only having nine productive borings, possess 46 productive hand-dug wells. In the district of Bacau, the Romano-American are operating 33 productive hand-dug wells, they being the largest owners of such wells in that district, though it is estimated that here there are approximately 250 productive hand-dug wells operated by various small producers. The total number of abandoned hand-dug wells in Bacau district is 475.

ROUMANIAN PRODUCTION DURING NOVEMBER.

The total production of crude oil at the Roumanian oil fields during November amounted to approximately 108,508 tons, as against 110,983 tons in October. The production of the various districts, as compared with that for October, was as under (in tons):—

	November.	October.
Prahova—		
Bustenari-Calinet-Burloi	28,152	30,894
Campina-Poiana	31,080	30,347
Moreni	27,299	27,066
Baicoi-Tintea	14,328	14,991
Other Fields	1,179	894
Total for Prahova District ..	102,038	104,192
,, Dambovitza District ..	2,738	3,182
,, Buzeu District	2,267	2,160
,, Bacau District	1,465	1,449
Total	108,508	110,983

NIGERIA BITUMEN CORPORATION, LIMITED.

The Manager reports by cable as follows:—Borehole No. 9: straightening borehole; expecting to complete this week. Borehole No. 10: depth, 310 feet; increase, 10 feet. Borehole No. 11: depth, 456 feet; increase, 17 feet; caving.

PRODUCTION OF CRUDE OIL IN THE ROUMANIAN FIELDS.

STATISTICS FOR THE ELEVEN MONTHS.

The official statistics of the production of crude oil in the Roumanian oil fields during the eleven months—January-November, 1909—are given in the following table month by month. They are as under (in tons):—

January	88,906	July	117,184
February	89,643	August	116,286
March	101,592	September ..	110,952
April	108,163	October	110,983
May	113,541	November ..	108,410
June	109,725		

The production of crude oil during the eleven months of 1908 amounted to 1,054,000 tons, as against 1,175,385 tons for the eleven months of last year. Thus the increase for the eleven months last year was 121,000 tons, or about 12 per cent.

The *Moniteur du Petrole Roumain* states in its current issue that placing the production for last December at about 110,000 tons, the increase in the year's production, as compared with that for 1908, will be about 140,000 tons.

ROUMANIA'S PETROLEUM EXPORT TRADE DURING NOVEMBER.

During November the Roumanian petroleum export trade displayed great activity, a total of 39,212 tons of petroleum products being dispatched to foreign countries, as compared with a total of 27,984 tons for the corresponding month of 1908.

The shipments of the various products to the different countries were as under (in tons):—

	Crude Oil, Residuals and Gas Oil.	Illum. Oil.	Benzine.	Total.
France	2,475	—	10,501	12,976
England	2,998	8,651	—	11,649
Belgium	—	4,563	—	4,563
Turkey	220	4,068	9	4,297
Holland	3,577	—	—	3,577
Bulgaria	124	644	127	895
Austria-Hungary .	—	—	688	688
Germany	25	—	474	499
Spain	40	—	—	40
Other Countries ..	17	—	6	23

Compared with the figures for the corresponding month of 1908, the exports of illuminating oil shew an increase of over 3,200 tons, and those of crude oil, gas oil, etc., of about 9,000 tons; but on the other hand, benzine exports have decreased during the month 1,000 tons.

THE BAKU RUSSIAN PETROLEUM CO., LIMITED.

SUCCESSFUL RECONSTRUCTION.

The Baku Russian Petroleum Co. (1909) Limited, announce that the final batch of allotment letters and letters of regret has been posted, the recent issue having been considerably over-subscribed. The announcement will be received with pleasure by that large circle of shareholders who have all along called for some clear and straightforward scheme of reconstruction.

NEW ENGLISH COMPANIES.

RED SEA OILFIELDS.

Registered on January 3rd with a capital of £450,000 (£1). The objects of the company are to acquire oil-bearing lands or concessions relating thereto at Jemsah, in Egypt, to adopt an agreement between the Egyptian Petroleum Co. of the first part, the Egyptian Oil Trust, Ltd., of the second part, and the company of the third part, and to carry on the business of winners and workers of petroleum or other oil, bitumen, asphalt, ozokerite, or other similar substances, distillers and refiners of oils, etc. Minimum cash subscription, 70,000 shares. First directors (not less than two nor more than nine): Allen Paull, Mount Hall, Lower Kingswood, Reigate, and J. S. Smith-Winby, 8, Coleman Street, E.C. £100. As fixed by company. 26, Victoria Street, Westminster.

STANDARD OIL COMPANY OF MEXICO, LTD.

Registered by Messrs. Pekeman, Son and Read, 11, Iremonger Lane, E.C. Capital £11,000, in 100,000 "A" shares of 2s. each and 20,000 "B" shares of 1s. each. Objects: To acquire develop and turn to account oil properties in Mexico or elsewhere Minimum cash subscription, 10,000 "A" shares. The directors are:—Mr. George Macdonald, 560-1, Salisbury House, London, E.C., director, Spanish Petroleum Co., Ltd.; Mr. Leslie W. Moore, Smallfield, Surrey, director, Spanish Petroleum Co., Ltd.; Mr. Frank L. Roudebush, managing director, Wilfley Mining Machinery Co., Ltd., Salisbury House, E.C.; Count Oscar De Nevers, 86, Nightingale Lane, S.W.; and Mr. Harry Le Marchant, 139, Queen Victoria Street, E.C. The secretary is Mr. Arthur C. Turtle, and the registered offices are at 14-16, Cockspur Street, London, S.W. This company will secure a 50 years' oil lease, together with an option to purchase the fee simple of an important tract of petroliferous land situated in the district of Tuxpan, State of Vera Cruz, Republic of Mexico, upon, it is said, most favourable terms. The property is situated at Tamatoco, and is known as El Gallo, and is in the centre of a well-known producing oil field. The area is 5,350 acres in one unbroken block, or about eight and one-third square miles, sufficient for the formation of several subsidiary companies later on with all rights of ingress and egress. On the El Gallo property there are stated to be five seepages, consisting of pools of oil, in which the oil is bubbling up. These pools and their extensions vary from 20 to 25 feet in diameter, with continuous flows of oil forming permanent pools from 8 inches to 2 feet in depth, extending in a north-easterly and south-westerly direction, and about 1,500 feet apart. South of El Gallo, at Chapapote, several wells have been drilled by the Pearson interests with very successful results, as is also the case at Cerro Viejo, a few kilometres only from this property. East of Tuxpan the Southern Pacific Railroad have struck oil in one well and are sinking another. The first directors (to number not less than three nor more than five) are to be appointed by the signatories. No share qualification required. Remuneration, £50 each per annum (£100 for the chairman) and 5 per cent. of the distributed profits, divisible.

LIBERIA PETROLEUM SYNDICATE, LTD.

Registered by Mr. Edgar Morris, 81, Park Street, Grosvenor Square, W., with a capital of £20,000 in £1 shares. Objects: To search for oil springs and other minerals in Liberia and elsewhere, and to carry on the business of miners, prospectors, oil refiners and dealers, carriers, chemists, smelters, etc. Minimum cash subscription, 7,000 shares. The first directors (to number not less than two nor more than five) are: W. A. Macmullen, C. T. Hilder, E. J. Townsend and W. G. W. Barnard. Registered office: 17, Gracechurch Street, London, E.C.

PETROLEUM IMPORTS INTO THE UNITED KINGDOM.

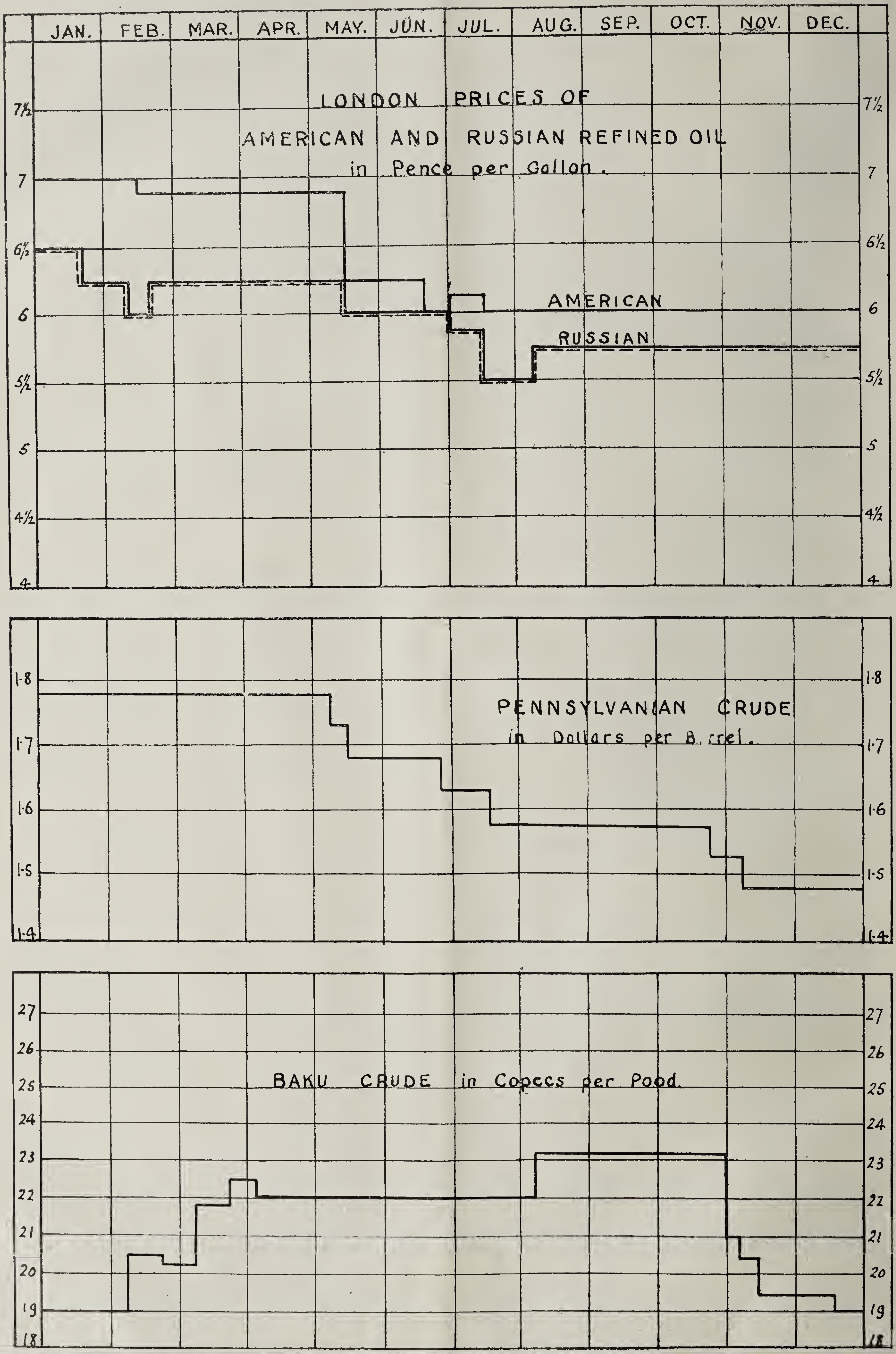
THE TRADE DURING 1909.

In order that our readers may have a complete tabular statement of the imports of petroleum and its allied products into the United Kingdom during the past year, the following table has been compiled. The figures have been taken from our usual list of classified petroleum imports, and are now published owing to the fact that the last classified table published in the Review of January 1st, only dealt with the imports up to December 27th.

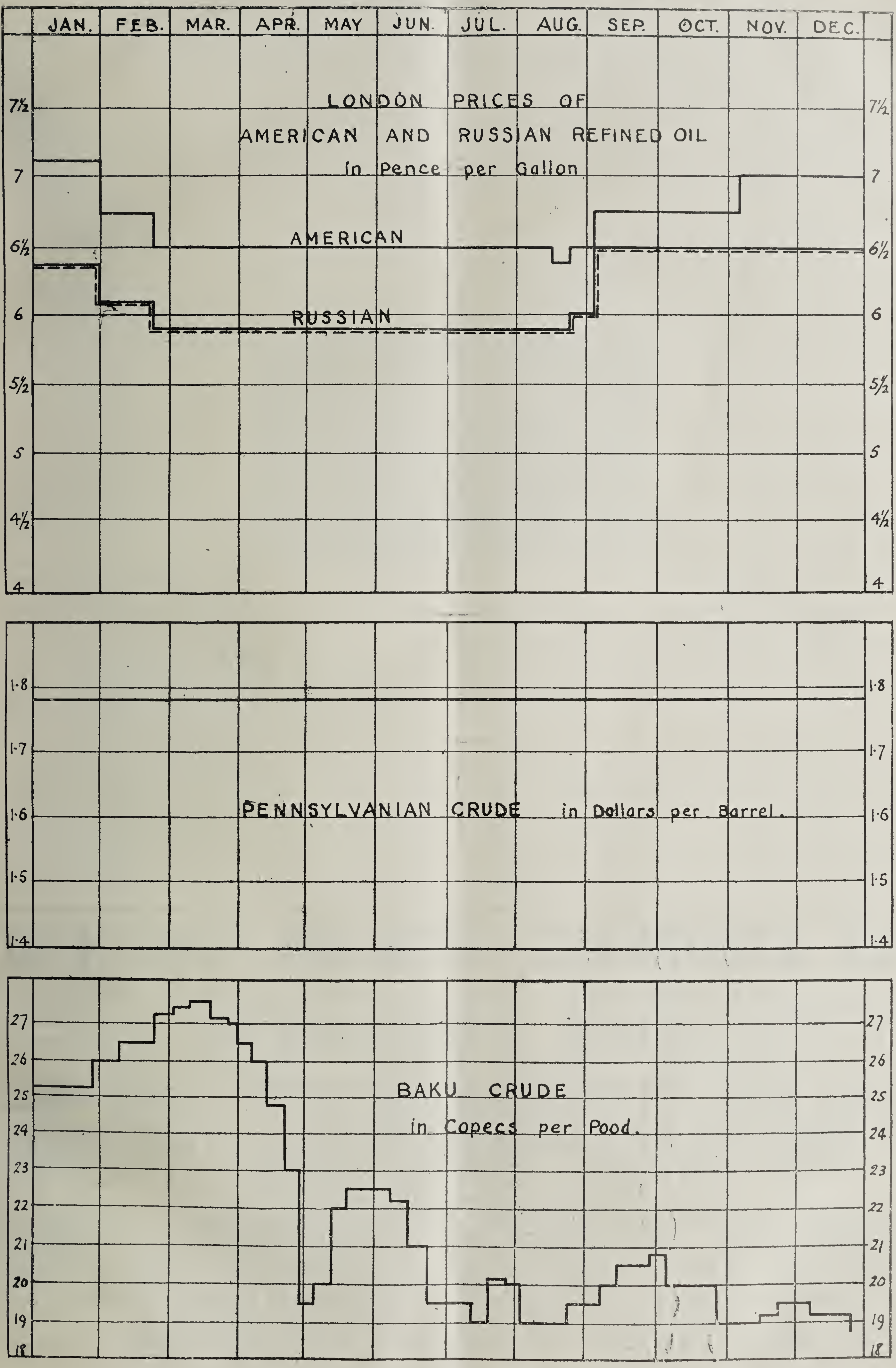
During the last four days of 1909, our petroleum import trade was particularly brisk, no less than 6,500,000 gallons of petroleum products being discharged from the United States. The complete figures for the year are as under :—

Country.	Illuminating Oil.	Lubricating Oil.	Residuals.	Gas Oil (Solar).	Benzine.	Fuel Oil.	Other Descriptions.	Totals.
Austria	—	143,400	181,910	—	—	—	—	335,310
Belgium... ...	370	662,020	200	—	—	—	634	663,224
Canada	—	4,380	42,170	—	—	—	—	46,550
Dutch India ...	400	1,200	—	—	26,257,570	80	80	26,259,330
Germany ...	5,524,400	1,767,660	8,250	426,000	1,920	4,640	28,650	7,761,620
Holland	304,690	16,430	—	—	3,737,090	—	146,550	4,204,760
Roumania ...	10,162,040	500	1,607,000	3,642,800	4,817,480	—	—	20,231,900
Russia	18,285,273	7,489,530	557,420	160	1,715,940	—	64,200	28,050,912
U.S.A.	114,311,109	41,659,485	61,530	70,501,360	15,202,210	8,715,980	1,488,310	251,998,514
Other Countries..	436,070	71,970	—	1,000	1,306,160	480	2,310	1,817,990
Totals... ...	149,024,352	51,816,575	2,458,480	74,571,320	53,038,370	8,721,180	1,730,634	341,370,110

PETROLEUM PRICES DURING 1909.



PETROLEUM PRICES DURING 1908.



THE OIL AND OZOKERITE COMPANY, LTD.

A REMARKABLE PROPOSITION.

With the advent of a remarkable proposition to secure capital upon the English market for the Oil and Ozokerite Co., Ltd., the real boom in oil may be said to have commenced in earnest. The ambitions of the promoters cannot claim to be too modest, for the capital suggested is £2,300,000, which will be divided into 950,000 preference shares, 500,000 ordinary shares and 800,000 debentures.

The property, which this remarkable company is to acquire, appears to be as remarkable as the proposition itself, for while experts have valued it at £8,059,463 12s. 3d., it is to be purchased for the sum of £1,500,000. The property is situated in Galicia, and it appears that the advantageous terms upon which it is to be acquired are traceable to the fact that, owing to the crisis which for some time overtook Galicia (which, by the bye, is now almost a thing of the past), valuable properties are going very cheap. There are eight petroleum wells upon the property, and these likewise claim to be very valuable, seeing that it is estimated they will produce a net profit of £150,000 yearly. But the ozokerite mines which have been acquired will doubtless stand as one of the company's most important assets. They have belonged to the Lander Bank of Vienna and the Credit Bank of Lemberg. The first-named bank has been operating the mines for about 15 years, during which time its dividends have never risen to more than 4 per cent., while the Credit Bank has been somewhat less successful, seeing that it has lost all its money. The other assets of the company seem to be somewhat mythical. For instance, several earthen reservoirs for receiving large quantities of crude oil have been erected upon the land which the company is to acquire. There is no suggestion that the oil contained in these reservoirs will be the property of the new company, but, seeing that the reservoirs were quickly constructed, it is believed that some portion of the oil in the reservoirs will escape on to the company's land and constitute an additional source of revenue. What a brilliant thought of the optimistic company promoter! And yet he and his friends are to be satisfied with the miserably paltry sum of £318,000 in cash, apart from debenture and preference shares.

The crude oil is to cost the company 2s. per ton to produce, certainly not a very exorbitant figure, seeing that when during the recent crisis the market fell to 21s. per ton, hundreds of oil producers were absolutely ruined by the unremunerative prices. One almost feels inclined to ask if this is the estimated cost of the oil "produced" from the earthen reservoirs aforesaid.

The profits which the experts contend are certain to be made are estimated at £430,000 per annum, a figure which admittedly is very substantial. The pity, however, is that they have omitted to state how this sum is arrived at. We have had one or two Anglo-Galician petroleum enterprises, all more or less unfortunate, but all past attempts to seek British capital for Galicia must sink into insignificance when compared with the present ambitious proposal.

We must confess that we are grieved to see such names as Sir Thomas Barclay, Bart., and the Right Hon. Earl Russell among those of the directorate of this latest promotion, but if we mistake not, even high sounding titles will not be sufficient to drag the English investor into a scheme which, from start to finish, is nothing more than the imagination of a perturbed brain.

◆

THE SPIES PETROLEUM COMPANY, LTD., ACQUIRE MAIKOP PROPERTIES.

The shareholders of the Spies Petroleum Co. will learn with much pleasure that their directors have recently acquired a considerable interest in the Maikop field. In order to provide funds for this new departure the company has sold the 70,000 unissued shares of the company to an influential group, which has promised to furnish valuable assistance in the development of the new territories.

THE LIVERPOOL STORAGE CO., LTD.
Exceptional facilities for the storage of all kinds of . . .
PETROLEUM PRODUCTS in bulk and barrels.
OCEAN DEPOTS FOR PETROLEUM SPIRIT, LIQUID FUEL, ILLUMINATING OILS, LUBRICATING OILS & TURPENTINE,
Also for ROSIN, TAR, TALLOW, &c., &c.
Warehouse Receipts and Warrants accepted by all Banks.
The accommodation at all the Company's depots is upon the most up-to-date principles, while special facilities are provided for forwarding of goods to all parts of the kingdom by rail, canal or steamer. Correspondence invited.
The General Manager, Peters' Buildings, 13, Rumford Street, LIVERPOOL.
Tel. Add.—"CASEMATES, LIVERPOOL." Telephones 1808 CENTRAL, LIVERPOOL.
" "WHARFINGER, MANCHESTER." " 3831 MANCHESTER

THE PETROLEUM TRADE OF ROUEN.

The growth of the petroleum trade in Rouen is strikingly illustrated in the report recently forwarded to the American Government by Mr. Charles A. Holder, the American Consul, who points out that petroleum is to-day one of the principal elements of traffic in the port of Rouen. In 1908 more than 250,000 tons were imported, this amount being surpassed only by the tonnage of coal, woods and wines. That this tonnage is most important may be judged from the fact that in 1907 it represented nearly one-half of the total tonnage of mineral oils imported into all of France, and in value $5,790,000 out of a total importation of mineral oils into France of $14,861,000.

A CORNER OF ONE OF ROUEN'S PETROLEUM REFINERIES.

The 253,346 tons received in 1908 were made up as follows:—Crude oils, 77,477; refined oils and essences, 153,073; heavy oils and residues, 22,796. Of the crude oils, 45,396 tons came from the United States; 20,452 tons from Roumania; and 11,629 tons from Russia.

Russia especially sent heavy oils, its petroleums differing in composition from those sent by America. The American petroleums are richer in light-giving qualities and benzine, while the Russian ones are more suitable for greasing and have more residues.

Splendid facilities are offered for the extension of the petroleum trade in Rouen since the building of the special petroleum dock, which also guarantees safety to vessels moored in other parts of the harbour. Many of the vessels engaged in this trade regularly carry more than 5,000 tons each voyage, and are more than 330 feet in length. Vessels drawing more than 24½ feet can now come up the Seine to the harbour of Rouen. The petroleum comes in bulk, pipe lines being used to convey it from the boat to the works, where it is stored in tanks which are under surveillance of customs officers, so that it remains in bond without immediately paying duties.

At the petroleum dock there are eight refining companies, and these maintain also other works and storehouses situated for the most part in the environs of Paris. For shipment from Rouen the companies use tank cars or, when their works are on the Seine or connected thereto by waterways, which is usually the case, barges are employed. The barges are manned by two or three men only, and carry usually 400 to 500 tons, or more than an ordinary French merchandise train. They usually load in bulk, but sometimes carry cargoes of casks or boxes of cans. An interesting point is the progressive increase in the importation of refined oils, not only to Rouen, but to all of France. The receipts of refined oils at Rouen in 1908 were five times greater than in 1903, while the imports of crude oil declined over one-third. The reason for this is that since April, 1903, the petroleum industry has had to pay a manufacturing or refining tax of $2·40 for each ton, or $1·93 for each 1,000 litres (264·17 gallons) for the refining of crude oils. This national tax, levied to increase the resources of the treasury, has therefore worked out to be something like a premium on the importation into France of manufactured products at the expense of crude. This is an inducement for American trade to send its manufactured products to France.

The summer of 1909 was one of large importations of petroleum, because the oil companies, knowing that the cessation of the commercial treaty between France and the United States would result in the old higher duties upon the importation of petroleum from the United States into France, imported an enormous stock before being compelled to pay such new duties. During the first week after the cessation of the treaty (October 31st, 1909) there were no importations of petroleum from the United States.

THE TEXAS COMPANY,
Transporters, Refiners and Distributors of Petroleum and its Products.
General Offices:—HOUSTON, TEXAS. Export Department:—Whitehall Building, NEW YORK.

REFINED OILS AND SPIRIT
IN BULK AND CASES.

FUEL OIL AND GAS OIL

LUBRICATING OILS. *"TEXACO" BITUMEN.*
Highest Grades. Uniform Quality. *Over 99 % Pure Bitumen.*

OCEAN AND EXPORT TERMINALS.—Port Arthur, Texas. Amesville—New Orleans, La. Delaware River—Marcus Hook, Pa
Bayonne, N.J.- New York Harbour. Curtis Bay—Baltimore, Md. Providence, R.I.

London Offices:—BILLITER BUILDINGS, 22 BILLITER STREET, E.C.

NOTES FROM THE OIL FIELDS.

RUSSIAN.

Ferghana.—The production of the Tchimion Society in the Ferghana field now amounts to 2,000 poods per day, this being obtained from six wells. At the present time the society has three borings under repair.

Suggested Reduction of Royalties.—The question of reducing the royalties levied by the Russian Government upon small sized plots in the Baku fields is now being considered by the Russian Minister of Finance. The general feeling is that the present royalties are in many cases exorbitant and therefore call for urgent revision.

A Railway for Maikop.—The Review learns from a semi-official source that the Russian Government are very favourably considering representations from the petroleum producers of the Kuban province for concession for the construction of a railway from the town of Maikop to the field of that name.

Liquid Fuel for Railway Needs.—Messrs. Nobel Bros. have tendered for suppiying the Tashkent and Crenberg railway with 6,000,000 poods of residuals, the first half of which quantity has to be delivered during next month, and the second half in August. The price is fixed at 28 copecs per pood for delivery in the summer, and 30 copecs for winter delivery.

Grosny Enterprise.—The Maikop fields have recently received the attention of one or two of the most important firms operating in the Grosny district, and it is stated that in the coming spring Messrs. Akhverdoff, the Spies Petroleum Co. and the Anglo-Russian Maximoff Co. will commence operations. Altogether these three firms have purchased 900 dessatines (90 plots) in the Maikop field.

To Facilitate Transport to Central Siberia.—In order to shorten the transport of petroleum products into Central Siberia, it is suggested that a Sarakoff-Tashkent railway shall be constructed. This will, when completed, shorten the journey by about 630 versts. The importance of Sarakoff as a petroleum distributing centre is seen from the fact that nearly 30,000,000 poods per annum pass through that point.

Baku Producers Criticised.—Writing in a Russian newspaper, a Mr. Shatiroff, who has lately visited Maikop, criticises the attitude of the Baku petroleum producing firms in regard to Maikop. He points out that although Maikop is certain to play an important part in the production of Russian petroleum, the Baku producers have allowed foreign capitalists to come and secure the majority of this prolific territory. He says that while the Baku people are waiting for the appearance of geological data of the new district for their guidance, the English capitalist, guided by the wonderful spouter struck by the Black Sea Society, is acquiring the best territory. He suggests that, in the future, Baku will simply satisfy the needs of the consumers of petroleum products in the Volga districts, while Maikop will capture the rest of the European markets.

AMERICAN.

Abandoned.—The East Coast Oil Co. has abandoned its first test well near Tuxpan, Mexico. At the time of abandonment, the hole was 3,730 feet deep.

An Important Test.—An important test has been completed in the Coalinga field upon territory which has hitherto been considered as unpromising. The well was put down by the Empire Oil Co.

Port Arthur Shipments.—During the first half of December there were shipped from Port Arthur 325,232 barrels of refined petroleum products and 57,250 barrels of crude oil. The destination of one cargo of crude oil was Mexico.

Activity in Mexico.—Messrs. Pearson are now preparing to bore several wells along the inter-coastal canal in the bed of Lake Tamiahua, in the hope of developing valuable deposits. It will be remembered that some time ago the Pearson interests obtained a Government concession, giving them the exclusive right to bore for petroleum in the bed of the lake.

Decreasing Pipe Line Runs.—The oil runs of the Prairie Oil and Gas Co. in the Mid-Continent fields during the first half of December were approximately 4,000 barrels per day behind the figure for the first half of the preceding month.

Important Transfer.—At the annual meeting of the stockholders in the Associated Oil Co. next month it is expected that the entire control will pass into the hands of the Southern Pacific railroad by the election of a new president and directors.

Canadian Natural Gas.—There is considerable prospect of a large natural gas field being developed in Canada. In Northern Alberta, several gas wells have lately been completed, and some of these yield over 1,500,000 cubic feet of natural gas per day.

Decreasing Production.—The production of crude oil in South-east Texas and Louisiana is slowly diminishing. The average daily yield of the two fields at the middle of last month was 31,000 barrels, as compared with 34,000 at the middle of November.

New Gusher in the Midway Field.—A well has recently been brought in in the Midway field to the north end of the proved territory, which during the first day gave out about 3,000 barrels. For several days afterwards the production of the well materially increased.

A Californian Gale.—The Sunset, Midway and McKittrick fields have been visited by a storm, which did considerable damage. Many derricks were overturned, while several camp buildings were completely demolished. In all, about 80 derricks were destroyed.

New Ocean-Going Barge Launched.—The Texas Co. has recently launched a new ocean-going steel barge, named the "Tulsa." The barge is to trade between Port Arthur and the Texas Co.'s terminals along the Gulf and Atlantic coasts. She has been built to carry eight grades of oil.

ROUMANIAN.

Doftanet Section.—Well No. 300 belonging to the Concordia and No. 1 of the International have recently had violent eruptions, and have yielded large quantities of oil. The specific gravity of the oil from the Concordia well is reported to be 0·810.

The Societe Speranta.—The annual meeting of the Speranta Society was held at Bucarest a few days ago, under the presidency of M. Nicolas Zanne. The balance sheet, which shewed a dividend for the past year of 6 per cent., was unanimously adopted.

The Steaua Romana's Production.—The production of the Steaua Romana in Campina during November was over 26,000 tons, as compared with 24,566 tons for the preceding month. The next largest producer in the Campina fields is the Regatul Roman, but for November this firm's output of crude oil fell almost 25 per cent. below what it was in October. Last month they produced 3,438 tons.

Refinery Statistics.—The output of the Roumanian refineries for November just published in the *Moniteur du Petrole Roumain* shew that 98,351 tons of crude oil were utilised during the month. Of the resulting refined oils, 22,665 tons were illuminating oil and 18,081 tons were benzine. At the beginning of that month the stocks of oils at the refineries included 46,754 tons of benzine and 70,144 tons of illuminating oil.

The Society Gallo Romana.—This company held its annual meeting on December 28th at Bucarest. This enterprise, which was created exclusively with French capital five years ago to carry on operations in the Bustenari region, has so far not obtained any result. The balance sheet up to the middle of last year shews a deficit of 86,500 francs upon a capital of 1,120,000 francs.

The Regatul Roman.—The balance sheet of this important society, which is now published in the Roumanian press, shews that the capital of the concern stands at 24,000,000 francs. The company's concessions, wells, reservoirs, machinery, pipe lines, and its other assets, are placed at a value of 34,067,459 francs, while additions to and improvements in works now being carried out are valued at 4,806,908 francs. The profit and loss account shews income for the year 1908 to 1909 at 4,551,132 francs, from which a sum of 3,430,129 francs is deducted for amortisation.

Telegraphic Address:
"LUBRAFOL,"
LONDON.

Telephones:
1222 AVENUE.
2682 CENTRAL.

LUBRICATING & FUEL OILS, Ltd.,

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RUSSIAN, AMERICAN, GALICIAN, ROUMANIAN, etc., Mineral Lubricating Oils and Fuel Oils.

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Mr. WILLIAM HOUSTON,
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Mr. RALPH THOMPSON,
26, Sandhill, Newcastle-on-Tyne.

Messrs. MUNSTER, SIMMS & Co.,
7, Albert Square, Belfast.

LANE & MACANDREW,

Cable Address—
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Managers of the following Tank Steamers:

	Tons. Oil Capacity.		Tons. Oil Capacity.		Tons. Oil Capacity.
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Danubian	**6,900**	**Lutetian**	**6,300**	**Le Coq**	**4,700**
Servian	**6,700**	**Terek**	**5,200**	**Rock Light**	**4,100**
Carpathian	**6.700**	**Balakani**	**5,200**	**Lux**	**2,900**
Roumanian	**6,700**	**Oriflamme**	**5,200**		

Brokers for Building, Purchasing,
Selling and Chartering Oil Tank Steamers.

LATEST QUOTATIONS OF PETROLEUM SHARES.

ENGLISH COMPANIES.

This list is restricted to companies who have paid dividends or who are producers.

Company.	Capital Paid Up.	Value of Shares.	Latest Prices.
Assam Oil	£310,000	£1	13/0-14/0
Bibi-Eybat Petroleum Co. ..	£380,000	£1	4/0-5/0
Californian Oilfields	£400,000	£1	$5\frac{3}{16}$-$5\frac{5}{16}$
Commonwealth Oil Co. ..	£500,000 Pref.	£1	$\frac{5}{8}$-$\frac{11}{16}$
,, ,, ..	£225,000 Def.	£1	$\frac{5}{8}$-$\frac{11}{16}$
Lobitos Oilfields, Ltd. (£1) ..	£360,000	£1	28/6-29/6
Pacific Oilfields, Ltd. (£1) ..	£200,000	£1	24/6-25/6
Russian Pet. & Liquid Fuel ..	£500,000 6½% Pref.	£1	2/0-3/0
,, ,, ...	£600,000 Ord.	£1	2/0-3/0
Schibaieff Petroleum ..	£575,000 6% Pref.	£5	5/0-7/0
,, ,, ...	£575,000 Or l.	£1	0/3-0/9
Shell Transport & Trading ..	£2,300,000	£1	66/0-67/0
,, ,, ,, ..	£1,000,000 Pref.	£10	$10\frac{7}{8}$-$11\frac{1}{8}$
Spies Petroleum Company ..	£465,000	10s.	19/9-20/3

RUSSIAN COMPANIES.

Company.	Nom. Value in Roubles.	Latest Quotations.	
		Lowest Roubles.	Highest Roubles.
Baku Naphtha Co.	100	315	316
,, ,, ,, (issue of 1908) fully pd.	100	312	320
Balakhany Naphtha Co.	250	—	—
Caspian Society	1,000	4,025	4,075
Mazout Co.	250	—	—
Melikoff, A. C.	250	—	—
Mirzoeff Bros.	250	—	—
Naftalan Co.	250	—	—
Naphtha Co. "Kavkas"	250	—	50
Naphtha Trading Co., A. I. Mantacheff & Co.	250	127	129
Neft Co.	250	—	75
Nobel Bros.	5,000	11,150	11,250
,, ,, ...	250	—	514
Rops and Co. V...	250	315	315
Russian Naphtha Co.	250	—	—
Society Mazout	250	—	400
Ter-Akopoff Co.	250	—	—
Tumaieff & Co., J. G.	250	—	—
Volga-Caspian Naphtha and Trading Co	250	—	—
,, ,, ,, (Second Issue)	250	—	—

SCOTCH COMPANIES.

Supplied by Messrs. MACLEAN AND HENDERSON, STIRLING.

Company.	Capital Paid Up.	Value of Share.	Latest Prices.
Anglo-Persian Oil Co., Ltd., 6% Part Pref. (5s paid)	£150,000	£1	5s. od.
Do. 5% Deb. Stock	£600,000	£100	£93 17s. 6d.
Broxburn Oil Co., Ltd., Ord. 17/- pd	£235,000	£1	£1 17s. 6d.
Do. 6% Cum. Pref. ..	£100,000	£10	£12 3s. 9d.
Burmah Oil, Ord.	£1,100,000	£1	£4 9s od.
Do. Pref.	£250,000	£1	£1 7s. od.
Dalmeny Oil Co., Ord. (7 paid) ..	£37,800	£8 10s	£5 os. od.
Do. 5% Pref ..	£18,900	£7	£5 os. od.
Oakbank Oil Co., Ltd., Ord.	£170,000	£1	£1 13s. 6d.
Do. Pref. (£1 paid)	£100,000	£1	£1 4s. 3d.
Pumpherston Min. Oil Co., Ld., Ord. (17s. paid)	£110,500	17s.	£8 7s. 6d.
Do. 6% Cum. Pref.	£100,000	£10	£13 os. od.
Tarbrax Oil Co., Ltd. Ord. (£1 pd.)	£65,000	£1	£2 7s. 3d.
Do. 6% Cum. Pref.	£40,000	£1	£1 4s. 6d.
Young's Paraffin Co., Ltd., Ord. ..	£452,808	£4	£3 1s. 6d.
Do. "B" Deb...	£150,000	£100	£165 5s.

DUTCH COMPANIES.

Company.			Latest Quotations (per cent.)
Dordtsche Petroleum Industrie My.		Aand.	175
,, ,, ,, ..	Pref.	,,	195
Int. Roum. Petroleum Maatschappij		,,	$27\frac{3}{8}$
Royal Dutch Petroleum Co.		,,	$443\frac{1}{2}$
Mœara Enim Petroleum Maatschappij ..		,,	196
Oklahoma Petroleum Co.	Pref.	,,	130
Perlak Petroleum Maatschappij		,,	144
Sumatra Palembang Petroleum Maatschappij		,,	167
Zuid Perlak Petroleum Maatschappij ..	Pref.	,,	$189\frac{1}{2}$
Union Petroleum Co.		,,	$97\frac{1}{2}$
Bibi-Eybat Petroleum Maatschappij		,,	24
Russian Petroleum and Liquid Fuel Co. ..		,,	$14\frac{3}{8}$
,, ,, ,,	Pref.	,,	$16\frac{1}{2}$
,, ,, ,,	(6% Debs.)	,,	$33\frac{7}{8}$
Schibaieff Petroleum Co. (Ord.)		,,	$4\frac{1}{2}$.
,, ,, ...	Pref.	,,	$7\frac{1}{2}$.
Shell Transport and Trading Co ..	Ord.	,,	358
Tulsa Petroleum Co.		,,	$92\frac{1}{4}$.

THE INDIAN PETROLEUM MARKET.

(*Crowded out of page* 53.)

BOMBAY, Dec. 25th.

The petroleum market is strong. The following are the current prices of the Standard Oil Co. of New York:

		Rs.	a.	p.
Snowflake Brand, 150 deg., American	(per case)	6	4	2
White Rose, 150 deg. ,,	,,	6	4	2
Chester Brand, 76 deg. Abel	,,	4	12	2
Devoe's Brilliant	,,	4	12	2
Monkey Brand, 76 deg. Abel	,,	4	6	2
Elephant Brand, 125 deg. (bulk in tins)	(per 2 tins)	3	15	0
Elephant Brand, 125 deg. (bulk without tins) (per 8 Imperial gallons)		3	5	0

The following are the current prices of the Asiatic Petroleum Co., Ltd.:—

		Rs.	a.	p.
Swan Brand, bulk loose..	(per unit)	2	15	0
Swan Brand, new tins	(per pair)	3	9	0
Ship Brand, bulk loose	(per unit)	3	5	0
Ship Brand, new tins	(per pair)	3	15	0
Rising Sun Brand, bulk loose	,,	3	7	0
Rising Sun Brand, new tins	,,	4	1	0
Anchor Cases	(per case)	4	3	0
Silver Light 150 deg. cases, ...	(per case)	5	4	0

The prices of the Burma Oil Co.'s productions are as under:—

		Rs.	a.	p.
Kerosene, Victoria	(per 2 tins)	3	8	0
Kerosene, Victoria	(per 8 gallons)	2	14	0
Kerosene, Chukker	(per 2 tins)	3	15	0
Kerosene, Chukker	(per 8 gallons)	3	5	0
Burmah Wax	(per pound)	0	3	6
Burmah Candles	,,	[illegible]	5	0

PRODUCTION OF ENGLISH COMPANIES IN RUSSIA.

BAKU RUSSIAN PETROLEUM CO., LTD.—No details of this company's production are now forthcoming.

RUSSIAN PETROLEUM AND LIQUID FUEL CO., LTD.—The production for the week ended January 1st was 137,000 poods, or 2,209 tons; and for the week ended 8th January was 137,000 poods, or 2,209 tons.

SPIES PETROLEUM CO., LTD.—The production for the week ended 31st December was 346,910 poods, or about 5,595 tons. The total production for year to December 31st was 14,499,670 poods, or about 233,866 tons. The total production for the corresponding period last year was 11,508,810 poods, or about 185,626 tons. The production for the week ended January 9th was 339,095 poods, or about 5,469 tons. The total production for the year to 9th January was 14,838,765 poods, or about 239,335 tons. The total production for the corresponding period last year was 11,667,040 poods, or about 188,178 tons.

THE EUROPEAN PETROLEUM CO., LTD.—The production for the week ended January 2nd was 110,284 poods, or 1,778 tons; and for the week ended 9th January was 104,562 poods, or 1,686 tons.

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" 6 " " 6 " "
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SATURDAY, JANUARY 15, 1910.

WHY RUSSIA'S EXPORT TRADE HAS DECLINED.

THE important conference which was called together a few days ago at St. Petersburg to discuss the pros and cons as to the advisability of reducing the rate for export kerosene over the Baku-Batoum railway suggests that if the Russian export kerosene trade is to become a thing of the past, then it will experience a hard death.

To-day the Russian producer and exporter alike have learned to recognise the fact that the position of the Russian petroleum industry will be almost hopeless if the export trade in petroleum and its products be lost, and consequently every effort is being made, in order that the Government shall have such weight of evidence brought against the present state of things as to give its consent to doing everything in its power to assist Russia's petroleum trade over-sea. There are many ways in which the Government could give its assistance, but perhaps the most important is that of the reduction of the kerosene freight rate from the refineries at Black City, Baku, to the port of Batoum. The lot of the Russian exporter in the past has not been one of great happiness. He has had to submit to extremely high tariffs upon the railway, and these have considerably mitigated against his success in the world's markets. He has also had to face strong and perfect rival organisations, who, recognising the feeble position in which he has stood, have done their utmost to oust him altogether from the distributing markets of Europe. And in a great measure they have been successful, for no one will deny that to-day the Russian petroleum export trade is in a far worse position than it was years ago.

Let us take the figures as relating to this country alone, for none could more plainly put the exact position before the intelligent student. It will come as a surprise to many to know that since 1904 the imports of Russian kerosene and solar oil into the United Kingdom have dropped by nearly 100,000,000 gallons annually. The figures of decrease at first sight seem so appalling as to be scarcely credible, and thus it may be useful if we here give the official figures. The imports of Russian oil to the United Kingdom since 1903 to the end of last year are seen in the following table:—

	In Gallons.
1903	117,000,000
1904	115,500,000
1905	60,000,000
1906	36,000,000
1907	30,000,000
1908	20,000,000
1909	18,000,000

The above figures are eloquent testimony of the decline of Russian oil upon the English markets, but this decline, it should be mentioned, is no isolated case, for upon other European markets statistics tell the same sorry story of Russia's waning trade in petroleum products.

There is naturally a cause for such decline, and this cause is not far to seek. The one route of transport of Russian kerosene from the refineries to seaboard at Batoum is in the hands of the Government, who in the past have been short-sighted enough to ignore the wishes of the refiners and exporters for reduced freights, and not only this, but have from time to time increased them. Under such circumstances it cannot occasion any surprise to find that Russia's export petroleum trade is fast departing. It is now six years ago that Dr. Dvorkovitz interviewed the Minister of Finance in St. Petersburg, in order to place before that gentleman data which conclusively proved what would be the inevitable result if the Baku-Batoum freight rates were not reduced for export kerosene, and in the face of this the rate was almost immediately raised by three copecs per pood. The downfall of Russian kerosene upon the European markets may be said to date from that time, and each passing year the situation has been going from bad to worse.

Inasmuch therefore as it is essential for the export of two-thirds of the whole of the Russian oil produced, if the Baku petroleum industry is to remain in a healthy and normal condition, it has long been evident that with the gradual decline of Russia's petroleum export trade, there were dark days in store for the Baku petroleum industry. Thus it was that pressure was brought to bear upon the Government to come to the assistance of its declining petroleum export trade, and the outcome was the holding of the important conference at St. Petersburg, which is reported elsewhere in this issue. Several gentlemen prominently associated with the Russian petroleum industry gave evidence to shew that unless the railway rate from Baku to Batoum for export kerosene is considerably lowered, it will be impossible for Russian kerosene to withstand the severe competition it has to meet upon European markets. Though not new, the argument is a very sound one, and to our way of thinking is the only move which the Russian Government has got in order to preserve its petroleum industry from disaster. An exorbitant rate as at present renders it impossible for the exporter to profitably carry on his business, and even if he be satisfied to work without reward, the payment of the freights, added to the cost of the kerosene, brings the price of the oil to such a figure that it cannot enter into fair competition with its rivals upon the foreign markets.

It is, therefore, the first duty of the Government to see that the petroleum industry is not on the down grade by reason of the tariffs which are placed upon it at home. If the present freight from Baku to Batoum be continued, then it is only a matter of a very few years and Russia will have no export trade at all. On the other hand, if the Government sees it way to substantially reduce the present freight rates for export kerosene, then upon European markets Russian oil may again secure a strong footing, and enter upon terms of fairness with its several rivals.

Mr. Goukassow and Mr. Nobel are both emphatic upon this point, and therefore it seems to us that the weight of their evidence should carry its full conviction. There are some who have argued that a reduction in freights will increase the prices of petroleum products to the home consumers. For our part, we agree *in toto* with the views of the representatives of the petroleum industry. Experience has already proved that the tariff must of necessity be lowered if Russia intends to retain her export petroleum trade. The duty of the Government is consequently plain, and no half-way measures will meet the case. A great reduction of the rate should be made without delay, and this, quite irrespective of the fact that the export traffic might possibly be unremunerative to the Government as owning the railway. The situation must be saved at all costs, and it is for the Government to save it.

Would they had taken to heart the serious arguments of Dr. Dvorkovitz upon the occasion, when, in 1904, the freight was increased. The Russian export trade would then have not been in the sorry plight in which we see it to-day, and the Government, by fixing a rate which was agreeable all round, would have shewn its appreciation for the efforts of those who have done so great a work in creating outlets for Russian oil upon foreign markets.

Though the decision of the recent Conference has not yet been arrived at, we do sincerely trust that the outcome will be the adhesion to lower freight rates in order to facilitate over-sea trade, for then and only then will Russian oil be able to enter foreign markets under conditions of fairness and equity.

THE SECOND SAKHALIN SYNDICATE, LIMITED.

This company has been registered during the present week, with a capital of £50,000, in shares of £1 each. The company has been formed to acquire the concessions granted to the first Sakhalin Syndicate of St. Petersburg, which comprise over 14,000 acres of oil and coal-bearing lands, situated in the Tchaivensky, Nutovo and Boatysan districts of Russian Sakhalin. The first directors of the company are Sir Henry White, C.V.O., and Dr. Paul Dvorkovitz. The other officials include Mr. John Thom, of Patricroft, as boring adviser, and Mr. Edgar F. Briggs, of 14, Great Marlborough Street as secretary.

[This is the first company in connection with which a thoroughly qualified boring adviser has been appointed. The great value of such an expert cannot be over-estimated, and we will not be surprised if in future it becomes a recognised matter of course for a petroleum company to have its boring adviser.—Ed., *P.R.*]

PETROLEUM REGULATIONS IN CEYLON.

The *Ceylon Government Gazette* of 3rd December, 1909 contains a notification, dated 30th November, whereby the following rule is substituted for rule 8 of the rules for the regulation of the importation of petroleum under section 10 of ordinance No. 6 of 1887:—

No petroleum shall be landed and removed until it has been reported by the testing officer not dangerous, except upon such conditions and to such places as the Collector of Customs may prescribe. It is provided that the requirements of these rules with regard to the testing of petroleum shall not apply to petroleum imported from British India at Trincomalee in quantities not exceeding 24 tins at a time, if the Assistant Collector at the port is satisfied by a certificate from the Chief Officer of Customs at the port of shipment, or his deputy, that such petroleum forms part of a consignment which has passed the test prescribed by law in British India.

AN IMPORTANT PETROLEUM PROJECT FOR ROUMANIA.

We learn that there is a project on foot in Roumania which aims at making it incumbent upon petroleum operating companies to prove by their books that two-thirds of the salaries paid by them go to Roumanian subjects.

Upon this subject we had the opportunity of interviewing Mr. H. W. A. Detterding a few days ago. It will be recollected that Mr. Detterding is a gentleman who has been responsible to a great degree for the remarkable success of the Royal Dutch Co. Mr. Detterding has recently turned his attention to Roumania, where, it must be admitted, his presence would give an impetus to the exploitation of petroleum, and do much good for the industry. Mr. Detterding declares that if such project becomes law, he, together with many others will withdraw from Roumania.

We on our part would express regret that it is contemplated to introduce such a measure, as it is bound to have a most disastrous effect upon the Roumanian petroleum industry.

RECENT PUBLICATIONS.

Motor-Car Mechanism and Management By W. Poynter Adams. 5s.

Among the whole list of practical test books published by those well-known publishers—Messrs. Charles Griffin and Co., Ltd., Exeter Street, Strand, W.C.—none can claim to be more attractive than that from the pen of Mr. W. Poynter Adams, entitled "Motor Car Mechanism and Management." Published some time ago, the demand for the publication has been so large that of the second edition recently printed, the supply is now falling very low. The present book deals with the petrol car, the electric and steam cars being left to subsequent editions Mr. Adams' work forms a most comprehensive volume, and throughout has the advantage of viewing things in their practical light, the author knowing to a nicety of what he speaks. The general principles of construction are clearly explained, and all that makes for perfection in the management of a motor-car finds exhaustive treatment in the two hundred pages of the book. To those who desire to thoroughly master the mechanism of a car, both in the garage and on the road, will find this little red-covered book absolutely invaluable.

Aids in Practical Geology. By Prof. Grenville A. J. Cole, M.R.I.A, F.G.S. 10s. 6d. Messrs. Charles Griffin and Co., Ltd., Exeter Street, Strand, W.C.

The fact that the sixth edition of this great work by Mr. Cole has just left the press should be in itself sufficient guarantee, if that were needed, of the utility of the publication to that large body of students to whom geology specially appeals. The present edition has been somewhat altered from its predecessors, and the subject matter brought thoroughly up to date. The work is divided into four parts, the first dealing with the sampling of the earth's crust, the second with the examination of minerals, the third with the examination of rocks, and the final chapter, the examination of fossils. The text matter is rendered the clearer by nearly one hundred and fifty illustrations. As may be gathered from a work running to over four hundred pages, the important subject of geology finds very careful treatment, and like previous editions, the present one should find extended use among students of geology, for upon this important subject we cannot recollect any one more competent to give an opinion than the author who, by-the-bye, is professor of geology and mineralogy in the Royal College of Science for Ireland, as well as being a director of the Irish Geological Survey.

The Deep Well Tool and Boring Company, Limited, St. Albans.

This enterprising firm of English boring tool manufacturers have recently issued a most comprehensive catalogue which should be in the hands of all companies associated with the petroleum industry. The catalogue, which in our opinion is far in advance of anything we have seen before in this line, is a well bound and splendidly got up volume of nearly 400 pages wherein is to be found much valuable information as to the most expeditious and modern way of sinking oil wells, in addition to the comprehensive list of drilling tools and accessories which the firm manufacture. The introductory note of the catalogue which deals with the speciality of the improved Canadian system calls for special mention. The firm, who have assisted to considerably popularise this system, explain, that their speciality combines the certainty of the pole system with the advantages of wire cable drilling, having been very successfully employed in the deep boreholes in the Galician and other fields. We strongly recommend the acquisition of the new catalogue of the Deep Well Tool and Boring Co. by all interested in the search for oil.

A Valuable Pocket Diary.—Messrs. Hayward-Tyler and Co., Ltd., the well-known hydraulic and sanitary engineers, of 99, Queen Victoria Street, London, E.C., have recently issued a most valuable pocket diary to their numerous clients. Apart from being a most hand diary, the booklet contains a wealth of useful information. There is, for instance, considerable useful memoranda relative to water supply, and a table giving details of friction in pipes, while measures and weights of water, metric tables, post office tables, etc., etc., go to make up a valuable diary, which is bound to be appreciated by all recipients.

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A Report from Colombo states that the Cartagena Oil Refining Co., a Colombian enterprise, have established a complete plant, which is already working with crude petroleum imported from the United States (about 100,000 gallons every other month), and is producing fair qualities of refined oil for lighting, gasolene and lubricating.

THE PETROLEUM DEPOSITS OF MEXICO.

Consul P. Merrill Griffith, of Tampico, has circulated the following account of the development of the petroleum industry in those portions of the States of Tamaulipas and Vera Cruz lying adjacent to each other:—

Within a radius of 75 miles of Tampico there exist the most abundant and valuable petroleum and asphalt deposits yet discovered in Mexico, and great interest and activity is being manifested in their exploitation.

Most of the capital employed in the development of the different branches of the industry in this section of Mexico is American, and the company most heavily interested—and, in fact, the pioneer in this field—is the Mexican Petroleum Co., an American concern, with headquarters at El Ebano. This company owns in fee simple about 250,000 acres of land, which it has been developing at different localities for the past five years. The work has progressed to such an extent that the company now has over 30 producing wells, a large number of storage tanks, all of its departments specially equipped with modern facilities for handling the output, and it is now building a pipe line 100 kilometres (62 miles) to run from its new fields in the State of Vera Cruz to Tampico. The handling of the most of its output does not require a pipe line, as the wells are conveniently located to rail or water transportation. The output is consumed by the Waters-Pierce refinery, of Tampico, and by the National Railroad of Mexico, from 50 to 55 cents gold being paid for the crude product. Other prominent American operators in this section are the Harriman interests, the Mexican Fuel Oil Co., the Mexican Fuel Co., C. H. Rathbone and the McKay interests, a collateral branch of the Rio Bravo Oil Co. Messrs. S. Pearson and Sons, English, are also operating near Tuxpam, and building a six-inch pipe line to run from their fields to Tuxpam. The well belonging to the latter, and the Pennsylvania Oil Co., which was brought in on July 4th, 1909, at Dos Bocas, about half-way between Tampico and Tuxpam, and which later was completely destroyed by fire, has been pronounced by several experts to have been the greatest well that has ever been known in the history of the oil industry of the world, its output having been estimated from 300,000 to 500,000 barrels daily.

The wells in the vicinity of Tampico range in depth from 800 to 2,500 feet, and vary in production from 100 to 2,000 barrels daily. The oil is heavy and viscous, and is mostly used in its crude state as a fuel. Under distillation about 30 per cent. frationates into a good grade of naphthas and illuminants. The heavy or malthitic product is converted into asphaltum by the removal of a 10 per cent. distillate. These asphaltums, for which there is a good demand, delivered in Mexico City, sell for $40 gold per ton. Their exportation is also increasing through this port, most of which goes to Germany.

Land located within this oil belt is still being sought and acquired with a view to exploitation. The interest in this industry continues, and is augmented, in fact, by the successful development work already accomplished, and by the excellent river, rail and maritime transportation acilities which the port of Tampico affords.

THE OIL SHALES OF CANADA.

Prof. G. A. Young has completed for the Department of Mines, Ottawa, a study of geology and economic minerals of Canada. Speaking of the oil-bearing shales of New Brunswick, he says: "The Albert shales are exposed at intervals for about 50 miles, from near Dorchester to a point south of Norton. They are usually highly inclined, and in thickness they often reach over 1,000 feet. At many points in the shale belt occur beds or bands of shales, dark brownish or dark grey in colour, that are very rich in bituminous matter. At least five such bands, varying in thickness from one to five feet or more, have been recognised. When retorted these richer shales have been found to yield from 30 to 80 gallons of crude oil, and from 65 to 112 of sulphate of ammonia per ton. The dense crude oil, when further treated, yield lubricating oils, burning oils and paraffin wax, while by-products, such as naphtha, benzol, aniline, etc., may be produced. Many years ago in the Albert shales, at Albert mines, in the vicinity of Hillsborough, a large vein-like body of albertite was found. This vein of nearly bituminous matter was mined during a period of twenty years, and yielded in all over 200,000 tons. This vein was worked to a depth of about 1,300 feet and for a length of about half-a-mile. Oil-bearing shales of carboniferous age also occur at various points in Nova Scotia, as in Hants, Pictou and Antigosh counties. In Cape Breton somewhat similar dark shales are found at Lake Ainslie and McAdam Lake; oil shales are also found in Gaspe. In Scotland very similar shales, no richer in oil and sulphate of ammonia, have been profitably mined, retorted and distilled for many years. At some of the localities both in New Brunswick and Nova Scotia, attempts have been made by means of borings to obtain oil from raw shales, but so far without proved profitable results. A considerable amount of boring for oil has been done in Gaspe, but without commercial success."

Prof. Young has this to say of gypsum:—"Beds of gypsum are associated with the lower carboniferous limestones in New Brunswick and Nova Scotia, more particularly over the territory around the head of the Bay of Fundy, and extending eastward in Nova Scotia around the Bay of Minas and north-eastward into Cape Breton. The gypsum is mined at a number of points, more notably around Hillsborough in New Brunswick, near Amhurst, at Windsor and other places in Hants county, and in Victoria county. In 1908 the two provinces produced nearly 450,000 tons. The gypsum deposits are often very extensive, forming beds 200 feet or more thick. The mineral is of various colours, often snow-white. With it often occurs anhydrite, sometimes in alternating beds, while at other times the two minerals are more irregularly associated."

Oil Legislation.—The Los Angeles Chamber of Mines are now considering the taking of steps in order that the Mexican Government may be induced to remove the duty upon fuel oil entering the country, as they are of opinion that this would provide a considerable market for Californian oil in the Republic.

The Anticlinal and Hydraulic Theories of Oil and Gas Accumulation.

By MALCOLM J. MUNN.

(Continued from page 20.)

The upward movement of a given particle of oil under such conditions continued only to a point where the pressure created by this compression was relieved. If the open space of the overlying sand equalled or exceeded in vertical section that of the mud, all of the oil and water which left the mud remained in the sand, displacing an equal amount forced into the next higher bed. The rate of compression which converted the oil-bearing sands and muds into sandstones and shales, doubtless, was greatest at moderate depths and under relatively light loads. In many cases, however, subsidence continued until the beds under consideration were buried by thousands of feet of younger sediments. Under such conditions compression, cementation and increasing heat probably combined to cause further upward movement of the oil and water. The general effect of this movement was to increase the percentage of oil in the sandstones at the expense of the shale, and to loose from the beds a greater ratio of water than oil, which further increased the percentage of oil to water in the sandstone, yet probably leaving a large amount of oil in the shales.

The vicissitudes through which the various oil-bearing beds have passed since their deposition are not told as simply as that given above, and to outline, even briefly their geologic history, is beyond the province of this paper. We may take, however, a simple example, say that of the Appalachian region, and illustrate the principle upon which the hydraulic theory is based.

We may leave out of account, as unessential, the subsequent history of a given series of oil-bearing shales and sandstones of this region, from the time they reached their maximum depth and temperature until the present time, and be able to deduce from facts now clearly established a fairly complete account of the process of oil and gas accumulation which took place in them.

The drill has penetrated the sedimentary rocks of the Appalachian region to a depth of more than one mile, and many wells have gone more than 4,000 feet into them. They have everywhere been found to consist of unaltered sandstones and shales of average porosity. Another fact of great theoretical importance is that the amount of water found in these rocks invariably decreases with depth. Fresh water is found in appreciable amounts in one or more beds as a rule to a maximum depth of 200 to 800 feet. Brackish or salt water occurs below the fresh water at depths ranging from 400 to about 3,000 feet. In a few wells out of the thousands drilled, salt water was found at greater depths than 3,000 feet, but in all such cases the amount and head of this water was very small, regardless of the porosity of the containing bed. In many wells open porous sandstones from 1,000 to 3,000 feet from the surface shew no water. Many of these were found to take up, with surprising rapidity, water poured into the well in the process of drilling. It is a generally recognised fact among oil men that as a rule the volume and head of water in a given bed decreases with increasing depth from the surface. Examples are numerous in the deeper sands where the supply of water in a given bed entirely disappears when traced down the dip. Fresh water in beds relatively close to points of outcrop shews a steady change to salt when traced down the dip.

These water conditions in the oil and gas bearing rocks of the Appalachian region obtain over thousands of square miles. These facts appear more remarkable when it is remembered that this oil region is located near the axes of a very broad shallow synclinorium or trough lying between the Allegheny front on the east and the Cincinnati anticline on the west, and extending from New York to Tennessee. This trough has doubtless existed since Permian times, and is probably much older. As previously stated, the maximum dip within this oil and gas region is probably not more than 200 feet to the mile, the average not exceeding 75 feet per mile.

Four points of very great theoretical importance relative to the present water conditions in the oil and gas bearing beds are clearly established by the facts referred to above: (1) These oil-bearing shales and sandstones have lost such an amount of their original water of deposition that they are now unsaturated in places. (2) The water now found in these beds is partly meteoric and partly water of deposition. (3) Most of the original water deposition in these rocks is held in them by capillarity, which would not permit the water to drain into a well drilled into it. (4) The salt water is largely water of deposition collected by being forced ahead of and with moving bodies of meteoric water.

As regards the first point it is an open question among geologists as to how and when these rocks became unsaturated. The explanation of this fact is by no means a simple one. This is especially true of some of the deeply buried oil sands which take up water with such avidity as to lead to the conclusion that the moisture in them must fill a very small percentage of the available pore space. It has been suggested that these rocks lost most of their water as steam and water vapour when they were at or near their greatest depth and temperature. Hydration, expansion of the beds upon a partial release of pressure, and differential contraction of the rocks and their fluid contents upon cooling have been suggested as possible causes. An explanation of this phenomenon, however, is not germane to the statement of the hydraulic theory.

The essential fact is that all of these rocks are not at present saturated with water. Whatever the agent of this depletion might have been, it was certainly one of diffusion rather than of accumulation and concentration, and may therefore be dismissed as not being the cause of the collection of oil and gas into pools. It seems very probable that the oil and gas pools which we find in the rocks to-day were formed subsequent to the desaturation of the oil and gas beafing beds.

As stated in the beginning, the fundamental idea of the hydraulic theory is that moving water under either hydraulic or capillary pressure has been the direct agent of accumulation of oil and gas pools. To this idea may be added another of equal value—the pools of oil and gas are held in place by water under hydraulic and capillary pressure which effectively seals up all the pores of the surrounding rock and prevents the dissipation of pressure by diffusion. Around these two fundamental principles must yet be grouped the essential facts needed to round out this hypothesis and to provide a more complete explanation of all the phenomena observed in the development of oil and gas pools. At the present time sufficient detailed facts relative to oil and gas are not available to establish any theory beyond question. In a general way, however, it may be shewn that this theory offers several advantages over that involved in the difference-in-gravity idea of accumulation which is unquestionably the principle upon which the anticlinal theory is based: (1) It provides an adequate means of forcing the oil and gas from the shales into the pay streaks of the sandstones or other porous beds. (2) It provides a means of preventing diffusion by sealing up the pore space surrounding oil and gas pools by water under either hydraulic or capillary pressure. (3) It provides an ample source of pressure in both oil and gas pools. (4) It furnishes a better explanation of the structural position of pools of oil and gas, especially in the Appalachian region.

The exact way in which moving water collects pools of oil and gas, as provided for in the hydraulic theory, may be made clearer by brief reference to a few well-established facts relative to the movement of water by hydraulic pressure and capillarity. Water travelling by hydraulic pressure is forced along by the weight of the column of water above. It will, therefore, travel fastest and farthest in the rocks having the largest capillaries, fissures and joints, since, under such conditions, friction, which opposes such movement, is least. Conversely it will travel slowest in the rocks having the smallest capillaries or pores, because the friction is greatest. The effect of friction is to decrease the rate of movement and the active head at the edge of the saturated area as it spreads farther and farther away from the point of intake or the source of water supply. In a given case this element of friction would affect the pressure at every point until the whole basin below the intake was entirely filled, and the body of water was brought to rest upon an absolutely impervious bottom. The pressure would then become hydrostatic and not hydraulic, and all points of equal distance below the intake would have the same pressure regardless of the nature of the rock. At a given spot water may therefore penetrate the rocks to where the combined friction entirely overcomes the hydraulic pressure at that point, thereby reducing the rate of movement to zero, without introducing the hydrostatic element of pressure.

Water moving by capillarity has been described as "drawing itself along in an endeavour to fill capillaries." This statement is not an exactly true one, since the forward movement is probably entirely due to pressure exerted by the water from the walls inward, being in effect a "squeeze" rather than a pull. The capillary force of water increases greatly with a decrease in the size of the capillaries. The finest grained rocks furnish the best avenues for movements by capillarity.

Water moving through rocks therefore travels both by squeezing itself along by capillarity and by being forced along by the weight of the column of water above, minus the friction. These forces evidently act in concert. In open porous beds the hydraulic element probably predominates, while in close fine-grained rocks movement is largely capillary.

In all instances where the hydraulic element is active, the advancing water is preceded by a skirmish line of capillary water. When the hydraulic element is exhausted by friction, the line of saturation is extended to a greater or less distance beyond to a point where the friction becomes so great that the supply of water for forward movement by capillarity cannot be brought up from the rear. When a bed is once invaded and saturated through capillary movement, the water of saturation cannot exert itself further; it can be forced out of the capillaries only by hydraulic pressure. The movement of such water in a capillary is subject at all times to the same laws of friction as that forced along by hydraulic pressure.

Water moving from a given intake, or other source of supply, and travelling by hydraulic and capillary pressure, as described above, would completely saturate the beds as it advanced, and, because of its greater capillary force, would accumulate and push ahead of it a considerable portion of the oil and gas contained in the beds. Movement through the different beds would not be uniform, which would finally result in zones of conflicting currents of water between which the bodies of oil and gas would be trapped and held. Water passing through a shale by capillarity would force oil into a sandstone or other porous bed below, where capillarity would be too weak for the water to follow. If portions of the sandstone should happen to be fine grained, while other portions were conglomeratic and unusually porous, the tendency of capillary movement would be to force the oil from the denser into the more porous portions, which would constitute the "pay streaks" as they are now found. While some pools would thus be formed by capillarity alone, others would be collected entirely by hydraulic pressure, and still others by a combination of hydraulic and capillary movements.

(*To be concluded.*)

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PETROLEUM AND NATURAL GAS IN THE PHILIPPINES.

By Mr. WARREN D. SMITH.

In view of the attention which is now being directed toward the petroleum deposits of the Philippines, an article which has recently appeared in the "Mineral Resources of the Philippines," issued by the Bureau of Science, Manila, from the pen of Mr. W. B. Smith, the Chief of the Division of Geology and Mines, Manila, will be perused with great interest by our readers.

The author states that there has been considerable interest aroused within the last year by the tapping of small reservoirs of natural gas in the course of drilling for artesian water. Two of these cases were investigated, and it was found that only a small pocket of gas had been penetrated, and that the supply was exceedingly small and intermittent.

Petroleum has been found in five places in the Archipelago—three in Tayabas province, the other two on the island of Cebu; one near the centre of the island on the west coast not far from Toledo, the other near the southern extremity, close to the *pueblo* of Alegria. In Tayabas and at the first-named locality in Cebu some prospecting by means of boring has been carried on, but as yet the Alegria field remains practically unknown. The oil in all three of these localities is found in a bluish shale, presumably of tertiary age.

In Tayabas province on the east coast of the peninsula south of San Narciso Mr. Cook drilled a well 21 metres deep and found some oil. This well is in the Vigo river valley. On the Bayhay river there is another well 40 metres deep, belonging to a different company. In the latter well, which is about 8 kilometres from the coast, the yield at the beginning was reported to be about 190 litres per day. The well has a five-inch bore, and was made with a light churn drill. The oil appears to be of a very good grade. It has a paraffin base, and its composition is very like that of the Sumatran oils.

In Cebu, near the town of Toledo, about three miles from the coast and just at the edge of the foothills, are two wells, the first to be sunk in the Philippine Archipelago. These are on the sugar estate of Smith, Bell and Co. These wells are sunk in shaly strata (in all likelihood similar to the formation in Tayabas) to the depth respectively of 244 and 344 metres. Very fair shows of oil have been reported from these wells in former years, but at present all operations have been suspended in the district. In fact, nothing has been done in this field since the outbreak of hostilities in 1897, and when the writer visited the field he found the wells choked up with *abaca* stalks and other refuse material, said by the natives to have been placed there by *insurrectos.* The elevation of the surface at these wells is 23 metres above sea level. There was only one derrick standing. It was approximately 18 metres high, the borings were three inches and the casing six inches. The strike of the strata is north 83 degrees west, dip 73 degrees to the south.

About two kilometres from the oil well is an outcrop of coal which in former years was worked to some extent, but is now abandoned. From a hasty reconnaissance of the country it is my opinion that the strata are less disturbed in this portion of the island than on the eastern side of the Cordillera or to the south, in the vicinity of the Alegria oil field. It is the intention of the Division of Mines to undertake a more detailed survey of this region at an early date, with a view to the rapid delimitation of the coal and the oil-bearing horizons.

At Alegria the oil is found at an elevation of 350 metres on the Malbog creek, about 3 kilometres in a straight line from the coast. At 441 metres a bed of poor brown lignite is found. The strata here dip eastward, or into the island, being quite different from what was found in the Toledo field. The rock capping on the surrounding hills is a coralline limestone of probable pliocene age. The oil appears to be identical with that from the other two fields, and is found oozing out of the same bluish shale. To those intending to explore this field I would recommend that a light drill be taken just over the divide, about one kilometre to the east from the place where the oil at present comes to the surface, to a point where the topography reaches its lowest elevation, where the oil-bearing stratum would be found under better cover.

With reference to the likelihood of finding oil on the east coast of Cebu, I might add that although the sedimentary formations are the same, yet a great area of igneous rock which occurs there would cause serious interruption to the oil-bearing formation. The apparent connection between coal and oil deposits in Cebu and other islands of the group leads me to think that in time oil may be found in paying quantities in many parts of the Archipelago.

CLASSIFIED IMPORTS INTO UNITED KINGDOM UP TO JANUARY 10th, 1910.

IN GALLONS.

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Country.	Illuminating.		Lubricating.		Residuals.		Gas Oil. (Solar)		Benzine.		Fuel Oil.		Other Descriptions.		Totals.	
	Since Jan. 1.	From Jan. 1.	Since Jan. 1.	From Jan. 1.	Since Jan. 1.	From Jan. 1.	Since Jan. 1.	From Jan. 1.	Since Jan. 1.	From Jan. 1.	Since Jan. 1.	From Jan. 1.	Since Jan. 1.	From Jan. 1.	Since Jan. 1.	From Jan. 1.
Austria ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Belgium ...	—	—	6,930	6,930	—	—	—	—	—	—	—	—	510	510	7,440	7,440
Canada ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dutch India.	—	—	—	—	—	—	—	—	2,109,120	2,109,120	—	—	—	—	2,109,120	2,109,120
Germany ...	20,030	20,030	28,650	28,650	2,000	2,000	—	—	—	—	—	—	—	—	50,680	50,680
Holland ...	—	—	—	—	—	—	—	—	336,400	336,400	—	—	2,520	2 520	338,920	338,920
Roumania ...	—	—	—	—	—	—	—	—	950,400	950,400	—	—	—	—	950,400	950,400
Russia ...	—	—	2,000	2,000	—	—	—	—	—	—	—	—	—	—	2,000	2,000
U.S.A. ...	13,500	13,500	925,500	925,500	4,020	4,020	1,286,130	1,286,130	—	—	—	—	10,990	10,990	2,240,140	2,240,140
Other Countries	—	—	960	960	--	—	—	—	—	—	—	—	1 600	1,600	2 560	2,560
	33,530	33,530	964,040	964,040	6,020	6,020	1,286,130	1,286,130	3,395,920	3,395,920	--	—	15,620	15,620	5,701,260	5,701,260

PETROLEUM IMPORTS INTO THE UNITED KINGDOM DURING DECEMBER.

THE SHIPMENTS INTO VARIOUS PORTS.

The imports of petroleum and its products into the United Kingdom during December are given in the following table, which has been specially prepared to shew the shipments into the different ports. The total quantity imported for the month was 27,737,160 gallons. The figures are as under:—

Port.	Illuminating.	Lubricating.	Residuals.	Gas Oil. (Solar.)	Benzine.	Fuel Oil.	Other Descriptions.
Aberdeen	16,360	1,480	—	—	—	—	—
Barrow	890,730	—	—	—	1,608,460	585,000	—
Belfast	939,000	1,100	—	404,030	—	—	—
Boston	—	460	—	—	—	—	—
Bristol	1,297,240	261,380	—	—	—	—	—
Cardiff	—	330	—	—	—	—	—
Cork	—	210	—	—	—	—	—
Dublin	—	—	—	302,920	—	—	—
Dundee	780	3,750	—	—	—	—	—
Glasgow	1,890	166,340	—	—	—	—	1,500
Goole	—	200	—	—	—	—	—
Grangemouth	50,800	6,880	—	—	—	—	—
Grimsby	—	3,650	—	—	—	—	—
Harwich	—	2,700	—	—	—	—	—
Hull	1,846,100	383,330	—	—	200	4,640	3,880
Leith	56,680	49,480	—	—	—	—	—
Liverpool	2,137,030	1,748,160	168,430	—	50,000	—	14,020
London	7,102,370	3,037,950	2,020	3,665,740	16,000	—	—
Manchester	—	1,836,480	—	—	—	—	19,240
Middlesbro'	—	2,100	—	—	—	—	—
Newcastle	10,000	7,080	—	—	—	—	—
Newport	—	60	—	—	—	—	—
Plymouth	—	650	—	—	—	—	—
Southampton	—	26,280	—	—	—	—	—
Swansea	—	2,050	—	—	—	—	—
Totals	14,348,980	6,542,100	170,450	4,372,690	1,674,660	589,640	38,640

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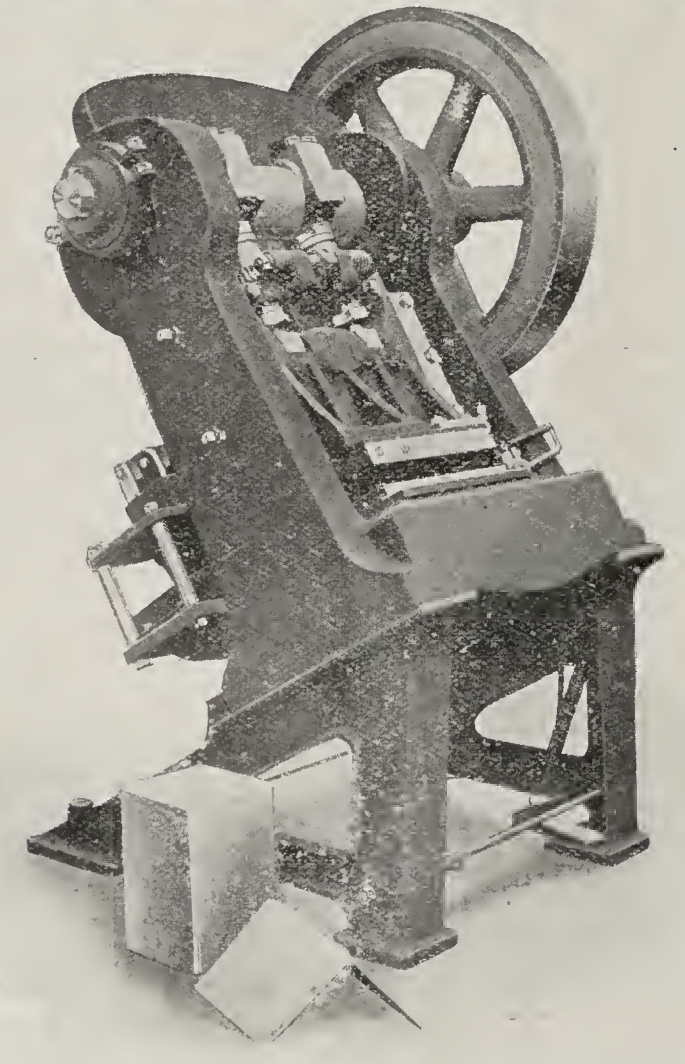

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The Petroleum Prospects of Poverty Bay, New Zealand.

MR. W. E. ACKROYD'S OPINIONS.

The encouraging reports lately received from various disticts in New Zealand, and especially from New Plymouth, in regard to the petroleum industry have directed increasing attention to the possibilities of oil being struck in commercial quantities in Poverty Bay.

Mr. W. E. Ackroyd, a gentleman prominently associated with New Zealand petroleum enterprises, was recently interviewed in reference to the subject of the future prospects, when he pointed out that it had often been stated that the country was too much disturbed and fractured to contain and produce petroleum in quantity. To gauge whether that was a correct statement, they had, he said, to examine other fields. If they took California, in which there were many points of similarity to the New Zealand East Coast area, oil was being found in that State in country which shewed a dip at an angle of from 45 to 60 degrees. The average dip on the New Zealand East Coast would not go over 25 to 30 degrees. In the oil fields of Galicia and Roumania also they found that the dislocated and fractured belts, along the mountain chains, furnish the gas and oil. In Russian oil fields the same was found, being situated on much dislocated and fractured zones on each side of the Caucasus uplift. Also in Persia on a dislocated zone along the Kurdestan chain; to say nothing of Japan, Java, Sumatra, Borneo and Peru, which were all known to have much dislocated and fractured strata, and yet were productive oil fields, along parallel belts to the main mountain chains of those countries. Therefore, the knowledge of the above was sufficient to upset the idea that New Zealand country was too disturbed.

In an examination of their own district, as a whole, they found the following indications which shewed the presence of petroleum and its products to be traceable over a large area:—

(*a*) The presence of petroleum exuding above the surface at several distant locations.

(*b*) Large numbers of natural gas emanations extending over a whole district, but along well-defined lines parallel to the Rakamara range.

(*c*) Kerosene or oil shales are found in several places.

(*d*) Over the same parallel lines we have numerous saline springs. Rocksalt being present in one locality.

(*e*) The presence of mud emanations with gas and saline water, as in Russia, India, Burmah, etc. These mud volcanoes are not generally found in the United States, where the oil strata belongs to early geological periods.

(*f*) There is at least one place where "ozokerite" or solid paraffin can be found.

(*g*) It has been proved that there are in the district (in several places) the structural and geological formation of strata, which was now universally accepted as being requisite for the accumulation of oil and gas in larger quantities, *i.e.*, anticlinal folds of porous strata, above which there was an impervious cover or blanket. An anticlinal fold could be traced in places on each of the well-defined lines previously mentioned.

The impervious cover was to be found practically over the whole district, consisting of claystones and shales, the underlying porous strata being sandstones and limestones with conglomerates in places.

The drilling in the past gave them reliable data as to that cover. The present Waitangi bore at Whatatutu, so far as information had been made public, proved an impervious cover in that location. In fact, it was nearly an ideal one, the presence of the two mud veins at 100 feet and 157 feet being particularly good as the required cover. So far as the quality of the oil was concerned, it was anticipated that they would obtain an oil of extra quality, distillation tests disclosing the following percentages:—Petroleum spirit, nil; kerosene, 47·2; lubricating oil, 51·7; paraffin, 1·1; coke, nil—a much easier oil to transport than what is being obtained in Taranaki at present, with 10·3 per cent. of paraffin.

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OUR AMERICAN LETTER.

Pittsburg, *December 12th.*

Developments in the West Virginia fields were the most strenuous during the past week of any for a number of years. The Shinnston pool in Clay district, Harrison county, W. Va., has been in the limelight for several months, but during the past week it eclipsed the brilliancy of previous performances and demonstrated its ability to attract the attention of operators in every section of the oil-producing districts of the country.

The production began to decline from 7,000 barrels, and was down below 5,000 barrels a day and then several large wells were drilled in and the production sent up to 7,500 barrels a day. This increase was brought about by the Philadelphia Company drilling in its No. 4 on the T. L. Swiger farm, and a test on the E. E. Swiger farm, both located inside of defined limits. The No. 4 T. L. Swiger had an initial production of 50 barrels an hour, and the E. E. Swiger shewed for a light well, but was drilled 60 feet into the sand and developed a second pay, and increased its production to 85 barrels an hour. When flowing at that rate and only a limited amount of tankage available, it would have seemed the part of discretion to not have drilled the well deeper at that time and to have given the transportation company an opportunity of increasing its facilities for taking care of a greater volume of production. However, the well was drilled deeper and began to flow with great force, and the oil for a number of hours flowed on the ground.

In South-Eastern Ohio—A Busy Corner.

During the time it was flowing with the greatest force, the production could only be estimated in a way that could not be considered accurate. The lowest estimate was 250 barrels, while the highest was 500 barrels an hour. Probably a little above 300 barrels an hour would be its highest hourly production, based on what it did when turned into tanks and accurately gauged. Accepting the estimate named, it makes it the largest well found in West Virginia since the South Penn drilled in its test on the Copley heirs' farm, located on Sand Fork, Lewis county, nine years ago, and has only been surpassed by the great gushers found in the McDonald field 18 or 19 years ago.

An accurate gauge shewed the well was flowing at the rate of 180 barrels an hour, or 4,300 barrels a day. This was its gauge 39 hours after it had been drilled deeper.

It is quite probable that the production of the pool will be increased. Should the E. E. Swiger farm gusher continue to hold up at a reasonable pace, the wells due in the sand and expected to be large producers, will be able to send the daily output of the pool to a higher point than it has previously registered.

Roane county is still the most active in development work. This county has more wells drilling and starting than any other in the lower southwest. A good deal of the work is far in advance of production and of an experimental nature. Among the recent completions have been a number of such wells, and a few are light producers, while others are fair gassers. In the older part of the producing district the average size of the late completions are smaller, and the daily production of the field is no longer advancing. Development work in this county will continue through the winter. At this time there are about 85 wells drilling and rigs up, and the activity is only exceeded by the deep sand territory in south-eastern Ohio.

Operations are falling off in Lincoln county. Early in the year this county was in the lead, but the field is now defined, and a very large portion of the interior has been developed. A few of the holders of large tracts have not fully developed their holdings. In this county, like Roane, the average size of the wells continues to grow smaller as development work extends to the outer edges of the district.

In Ritchie, Pleasants, and Wirt counties operators are shewing considerable energy in the amount of development work under way. The first named county has more work under way and starting than at any time since early in the spring. Grant and Murphy districts have been furnishing some very creditable producers, and in the Elm Run development there is a good deal of wildcatting.

In completions, Wirt and Pleasant counties have nothing better to offer than light pumpers. It is shallow drilling, and this fact alone is responsible for the amount of work under way and starting. Pleasants county has been so closely drilled over that it does not seem possible to find additional pools. The most of the work now under way consists of drilling an additional well at old locations in some of the old development.

The south-eastern Ohio districts completed about the usual number of wells during the past week, but they were not of the kind to arouse any great amount of enthusiasm. The deep sand territory in Perry and Fairfield counties is still far ahead of all others in active development work. This district is also completing more wells than any other, but the size is far below what they were a month or two ago. During the past month, but one large producer was completed, and it had an initial production of a little above 300 barrels. The production of the field is not increasing and it will require the completion of large producers to prevent a decline.

The American Oil Market.

New York, Week ended Dec. 31st.

The holiday season and the severity of winter conditions have exercised more of a retarding influence upon operations in the various petroleum fields, and comparatively little in the way of interesting developments is to be noted in the week's review. In the fields of the Pennsylvania classification, West Virginia presents the most favourable shewing, the new production column being augmented by the results in the Shinnstown pool of Harrison county. The best completion in that formation during the week, says the *Oil, Paint and Drug Reporter*, came in at the rate of fifty barrels an hour, but the first day's production was given as 720 barrels and the capacity of the well was on the decline. The best Shinnstown producers have maintained a fairly encouraging record, that on the E. E. Swiger farm being credited with 2,000 barrels a day, and that on the E. J. Whiteman tract with 1,000 barrels. The total production of the pool was estimated at a little less than 10,000 barrels a day. More work is said to be in progress in advance of defined limits than at any other time since the Shinnstown pool has been under active development. The most promising section is to the north-east of the pool, where an important test is now due. A completion in Tyler county was reported, shewing for a 125-barrel producer in the Keener sand. Drilling in Lincoln and Roane counties is being prosecuted with a fair degree of activity for the season. In the latter a sixty-barrel well in the Big Injun sand was brought in. All of the six completions in Lincoln county were producers, averaging between twenty-five and thirty barrels a day each. There has been more of a tendency to curtail operations in South-eastern Ohio, with the exception of Washington county. Interest in the deep sand territory of Perry and Fairfield counties is abating, as recent results do not seem to have met the expectation of operators. The Oakland City development of Indiana continues to furnish the best results, two of the three completions brought in during the week under review having a daily aggregate of 210 barrels. A feature of the week's results in Kentucky was the drilling of a twenty-five barrel well in the old Sunnybrook field of Wayne county at a formation considerably below any at which oil had been previously encountered, and the product was said to be superior to that found in the shallow sands. Work in the upper Kentucky fields is in abeyance at the low level of crude prices. Little change is indicated in the returns from the Illinois fields for the week.

Refined and Products.—The decline of the year has occasioned the usual abatement of business, and the local market for refined has failed to develop anything of new interest. The tone of the market is still suggestive of the weak position of crude, and until this influence can be mitigated there is little prospect that buyers will be encouraged to operate on anything but a hand-to-mouth basis. There was a fairly good movement in refined for export during the week, our record of clearances shewing a total of 13,720,345 gallons, against 8,493,700 gallons as previously. Of the amount shipped during the current week, 7,052,345 gallons were carried in bulk. Three tank steamers, four chartered steamers, and one sailing vessel cleared from New York during last week with refined petroleum in bulk and in cases. They were:—The German steamer, "Buffalo," for Flushing, with 2,750,000 gallons refined; the German steamer, "Prometheus," for Flushing, with 2,502,345 gallons refined; the Dutch steamer, "Rotterdam," for Amsterdam, with 1,800,000 gallons refined; the British steamer, "Lincaian," for Hong Kong, with 142,355 cases refined; the British steamer, "Sutton Hall," for Hong Kong, with 158,914 cases refined; the Austrian steamer, "Georgia," for Auckland, Wellington, Lyttelton and Dunedin, with 100,000 cases refined; the British steamer, "Den," of Ogil, for Whampoa, with 100,000 cases refined, and the British barque, "Malwa," for Forcados, West Coast Africa, with 19,000 cases refined.

CLOSING QUOTATIONS.

Crude at the Wells.

The quotations for oil represented by credit balances were:—

	Week ended Dec. 31. 1908.	Week ended Dec. 31. 1909.
Pennsylvania	$1·78	$1·43
North Lima	1·04	0·84
South Lima	0·99	0·79
Indiana	0·99	0·79
Illinois, heavy, below 30 deg. ..	0·60	0·52
Kansas and Indian Ter., 30 deg. and above	0 41	0·35
Heavy	0·28	0·28
Humble, Tex.	0·53	0 75
Saratoga	0·53	0·75
Sour Lake, Tex.	0·53	0·77
Jennings, La.	0·55	0·54
Canadian Oil:—		
Petrolia	1·44	1·24
Oil Springs, less pipeage	1·51	1·31

Refined—For Export.

In cents.	Week ended Dec 31. S.W. 110 test.	Week ended Dec 31. W.W. 150 test.
Barrels, cargo .. .. per gal.	8·05	@ 9·55
Philadelphia	8·05	@ 9·55
Bulk, New York	4·55	@ 6·05
Bulk, Philadelphia	4·55	@ 6·05
Cases, New York	10·45	@11·95
Cases Philadelphia	10·45	@11·95

Refined in Cases—110 Fire Test.

	Week ended Dec. 24. 1909.	Week ended Dec. 31. 1909.
3,000 to 10,000	10·60	10·60
1,000 to 3,000	10·65	10·65

Refined—Jobbing Lots.

In barrels, pkgs. included.

	Week ended Dec. 24.	Week ended Dec. 31.
130 fire test, S.W.	11¼	11¼
150 fire test, W.W.	11¾	11¾
In bulk from tanks	9	9

Naphtha and Gasolene.

	Week ended Dec. 24.	Week ended Dec. 31.
Naphtha, V. M. and P. deod. ..	12	12
Gasolene, 86 deg.	21¾	22¾

Pennsylvanian Oil Runs from December 22nd to December 28th were:—December 22nd, 187,001*; December 23rd, 24th and 25th, 469,313*; December 26th, 31,888; December 27th, 249,303*; and December 28th, 202,488*.

The Deliveries of Pennsylvanian Oil from December 23rd to December 29th were:—December 23rd, 235,261*; December 24th 25th and 26th, 496,989*; December 27th, 186,419*; December 28th, 205,174*; December 29th, 213,560*.

* Includes Illinois Oil.

Clearances for the Week.

During the week ended Dec. 31st and since Jan. 1, the clearances of petroleum, in gallons, from the port of New York, were as follows:—

	Week.	Year.	1908.
Refined	13,720,345	589,549,150	612,240,918
Crude	—	37,623,115	39,757,420
Naphtha	51,080	37,268,730	14,620,230
Residuum ..	12,000	3,088,115	9,425,095

Export Statistics.

The total exports from the port of New York and from the United States have been:—

	Gallons.
From New York, week ended Dec. 31st ..	18,293,793
Total from New York, from Jan. 1st, 1909 ..	840,578,836
Same period last year	867,213,327
Decrease	26,634,491
From United States, week ended Dec. 31st	29,214 079
Total from United States, since Jan. 1st, 1909	1,380,105,606
Same period last year	1,550,598,846
Decrease	170,493,240

WORTHINGTON & BOLER,
LIVERPOOL, LONDON & GLASGOW.
SEE ADVERTISEMENT ON BACK COVER.

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The "Review" Shipping List.

January 14, 1910.

(*The following abbreviations are used in this table:*—L. Left; P. Passed; Arr. Arrived; Sp. Spoken; Tr. Trading.)
Anglo-American Co.'s vessels marked thus (□): the Anglo-Saxon Co.'s tankers thus (*): and Messrs. Lane and Macandrew's thus (†).

Vessel.	From	For.	Latest Date and Position.
ALCHYMIST	Selzaete	Portsmouth	Sd. Terneuse, Jan. 12
ALICE ET ISABELLE (Fr. bq.)	New York	Rouen	In Port, Dec. 11
AMERICAN	Antwerp	Batoum	? P. Finisterre, Jan. 6
APPALACHEE □	Tyne	New York	Arr. Jan. 10
APSCHERON	Ibrail & Rouen	Antwerp	Arr. Dec. 13, in Port, Jan. 10
ARAL	Philadelphia	—	P. Dunnet Head, Jan. 2
ARAS	Penarth	Port Arthur (Texas)	P. Sand Key, Jan. 12
ASHTABULA □	Taku	Singapore	Arr. Dec. 14
ASTRAKHAN	Rotterdam	Tyne	Arr. Dec. 22, in Port, Jan. 11
AUGUSTA	Antwerp	Brunsbuttel	L. Jan. 12
AUGUST KORFF	Philadelphia	Birkenhead	At Liverpool, Jan. 12
AUREOLE	London	Galveston	At Norfolk, Jan. 9
AZOV	Callao	Tyne	Arr. Oct. 14, in Port, Jan. 11
BAKU STANDARD	Cardiff	Tyne	Arr. Aug 24, in Port, Jan. 11
BALAKANI†	Barrow	Port Arthur (Texas)	Arr. Jan. 9
BATOUM	Port Arthur (Texas)	London	Arr. Jan. 12
BAYONNE	Naples	Batoum	L. Jan. 3
BEACON LIGHT	Newport	Batoum	P. Gibraltar, Jan. 7
BLOOMFIELD	Manchester	New Orleans	At St. Johns (N F.) Jan. 12 for coal
BORJOM	—	—	Tr. b'tw'n Black Sea & Levant
BRILLIANT	New York	Alexandria	P. Sagres, Jan. 6
BRILLIANT (Br. bq.)	New York	Bombay	Arr. Nov. 26, in Port, Dec. 2
BRITISH SUN	Emden	Philadelphia	Arr. Jan. 12
BROADMAYNE	Tonsberg	Tyne	Arr. Feb. 13, '09, in Port, Jan. 11
BUFFALO	New York	Hamburg	L. Dec. 30
BULLMOUTH*	Aomori	Freshwater	L. Dec. 29
BULYSSES*	Cardiff	Singapore	P. Cape Point, Dec. 17
BURGERMEISTER PETERSEN	Tyne	Philadelphia	Arr. Jan. 10
CADILLAC	Philadelphia & Port Natal	Calcutta	Arr. about Jan. 10
CALCUTTA (B. b.) □	San Francisco	Yokohama	Arr. Jan. 11
CAPTAIN A. F. LUCAS	Sea	New York	Arr. Dec. 31
CARDIUM*	Samboe	London	Arr. Jan. 11
CARPATHIAN†	Newport N'ws	London	L. Jan. 7
CAUCASIAN†	Dublin	Tyne	Arr. Dec. 7
CHARLOIS	Philadelphia	Rotterdam	Arr. Oct. 19, in Port, Jan. 11
CHESAPEAKE □	New York	Port Natal	Sd. St. Vincent (C.V.), Dec. 26
CHESTER	Antwerp	Kustendje	P. Dungeness, Jan. 12
CHEYENNE	Savona	New York	Arr. Jan. 4
CITY OF EVERETT	New York	Norfolk (Va.)	60 mls. S.E. Sandy Hook, Dec. 30
CIUDAD DE REUS	New York	Barcelona	Arr. Sept. 28, in Port Dec. 28, repairing
CLAM*	Balekpappan	Palembang	L. Jan. 3
CLEARFIELD	Batoum	Rouen	Arr. Jan. 11
CONCH*	Sabang	Suez	L, Jan. 3
CONRAD MOHR	Philadelphia	Bergen	Arr. Jan. 10
COWRIE*	Saigon	Singapore	Arr. Dec. 11, in Port, Jan. 6
CUYAHOGA □	Alexandria	New York	Sd. Algiers, Jan 7
CYMBELINE	Newport & Port Arthur (Texas)	Campana	Sd. Port Arthur, Jan. 9
CZAR NICOLAI II.	Hamburg	Batoum	P. Dungeness, Jan. 12
DAGHESTAN	Genoa	Batoum	Arr. Jan. 10
DAKOTAH □	Hong Kong	Manila	Arr. Dec. 21
DANUBIAN†	Eastham	Liverpool	Arr. Jan. 6
DELAWARE □	Barrow	New York	Arr. Dec. 31
DERBENT	Batoum	Antwerp	Arr. Jan. 9, in Port, Jan. 10
DEUTSCHLAND	Hamburg	New York	Arr. Jan. 9
DIAMANT	Philadelphia	Hamburg	L. Jan 3
EDWARD DAWSON	Hull	Batoum	Off the Wight, Jan. 10
EL LOBO	Yokohama	San Francisco	Sd. Muroran, Jan. 2
ELAX*	Cochin	Aroe Bay	L. Jan. 10
ELISE MARIE	Stettin	New York	P. Dunnet Head, Jan. 9
ENERGIE	New York	Pillau	Arr. Jan. 3
ERIVAN	Batoum & Genoa	St. Louis (Rhn)	Arr. Jan. 11 & Sd. same day Kustendje
ETELKA	Fiume	Pola	Arr. Dec. 14
EUPLECTELA*	Singapore	Shanghai	L. Jan. 10
EXCELSIOR	New York	Amsterdam	L. Jan. 7
FRANCE MARIE (French bq.)	Santander	Marseilles	P. Cape Spartel, Jan. 11
GEESTEMUNDE	Stettin	Philadelphia	Arr. Jan. 11
GENESSE □	Tyne	Philadelphia	Arr. Jan. 4
GEORGIAN PRINCE	Kustendje	Vallo	P. Pera, Jan. 4
GOLDMOUTH*	Cardiff	Singapore	P. Cape Agulhas, about Dec. 31
GUTHEIL	Lisbon	Matanzas	L Jan. 5
H. C. HENRY	Taltal	—	At Madeira, Jan. 12
HAINAUT (Du. sh.)	Antwerp	New York	P. Ventnor, Dec. 13
HARRY WADSWORTH	London	Tees	Arr. Dec. 31, in Port, Jan. 10
HELIOS	Philadelphia	Copenhagen	P. Del. Break., Jan. 2
HERMIONE	Colombo	Malta	L. Dec. 31
HESPERUS	Hamburg	New York	L. Dec. 24
HOTHAM NEWTON	Batoum	London	At Zeebrugge, Jan. 10
HYRCANIA	Hull	Batoum	P. Gibraltar, Jan. 3
IOANNIS COUTZIS	Marseilles	Taganrog	L. Jan. 2
IROQUOIS □ (towing barge Navahoe)	London	New York	In Wireless Com., Browhead, Jan. 9
J. B. AUG. KESSLER	Karatzu	St. Cath'rine's Point	Sd. Port Natal, Dec. 24
JAMES BRAND	London	Tyne	Arr. Aug. 27, in Port Jan. 4, laid up
JOYO MARU	Rouen	Barry	Arr. Jan. 2, in Port, Jan. 5
JULES HENRI (French bq.)	Cette	Marseilles	In Port, Jan. 11
KURA	Copenhagen	Hull	Arr. Jan. 10, in Port, Jan. 12
LA CAMPINE	Antwerp	Philadelphia	Arr. Jan. 7
LA FLANDRE	Antwerp	Philadelphia	Arr. Jan. 9
LA HESBAYE	Antwerp	Kustendje	P. Beachy Head, Jan. 10
LACKAWANNA □	London	Hamburg	Arr. Dec. 14, in Port, Jan. 11
LE COQ†	Bordeaux	Blaye	Arr. Jan. 11
LOUTSCH	Batoum	Odessa	L. Dec 24
LUCERNA	Novorossisk	Ghent	P. Dover, Jan. 12
LUCIGEN	Trial Trip	Tyne	Arr. Mar. 6, in Pt. Jan. 11, laid up
LUCILINE†	Batoum	Rouen	L. Jan. 11
LUMEN	Calais	Tyne	Arr. Oct. 26, in Port, Jan. 11
LUTETIAN†	Bordeaux	Furth	Arr. Jan. 8
LUX†	Alicante	Batoum	Arr. Jan. 9
MANHATTAN	Portici	New York	Arr. Jan. 9
MANNHEIM	Rotterdam	Philadelphia	Arr. Jan. 9
MARGARETHA	Avonmouth	Philadelphia	P. Barry Island, Dec. 27
METEOR	Batoum	Vladivostock	Arr. Dec. 18
MEXICAN PRINCE	London	Tyne	Arr. Jan. 7, in Port, Jan. 11
MINA BREA	Caleta Buena	Callao	Arr. and in Port, Dec. 31
MINHLA	Rangoon	Chittagong	L. Jan. 11
MIRA	Calais	Blyth	In Port, Jan. 11, laid up

Vessel.	From.	For.	Latest Date and Position.
MUREX*	Port Natal	Singapore	L. Jan. 6
NARRAGANSETT	London	New York	Arr. Jan. 7
NAVAHOE	London	New York	In Wireless Com., Browhead, Jan. 9
NEW YORK□	Rotterdam	New York	L. Jan. 4
NIAGARA	New York	Madras	At Port Natal, Dec. 23
OBERON	San Francisco	Taltal	Sd. P. San Luis, Dec. 2
OCEAN	Rotterdam	New York	P. Lizard, Dec. 29
OILFIELD	Rouen	Tyne	Arr. Nov. 1, in Port, Jan. 11
ORIFLAMME†	Batoum	Constant'ple	In Port
OTTAWA□	Tyne	Sunderland	L. Jan. 12
OURAL	Batoum	Rouen	L. Jan. 7
PATELLA*	Tyne	Singapore	P. Las Palmas, Jan. 1
PAUL PAIX	Kustendje	Calais	Arr. Jan. 8
PAULA	New York	Swinemunde	L. Jan. 5
PECTAN	Pt. San Luis	Panama	L. Dec. 20
PENNOIL	Philadelphia	Dover	P. Lizard, Jan. 12
PETROLEINE	Cette	Batoum	Arr. Jan. 12
PHOEBUS	Rotterdam	New York	P. Scilly, Jan. 9
PINNA†	Honolulu	Yokohama	Arr. Dec. 22
POTOMAC□	Tyne	Philadelphia	L. Jan. 8
PROGRESSO ARGENTINA (Ar. bq.)	Port Arthur (Texas)	Buenos Ayres	Arr. Dec. 10
PROMETHEUS	New York	Hamburg	P. Lizard, Jan. 12
PRUDENTIA	Antwerp	Hull	Arr. Jan. 10, in Port, Jan. 12
PURELIGHT	Hamburg	Philadelphia	P. Nantucket, Jan. 12
QUEVILLY (Fr. bq.)	Rouen	Havre	Arr. Nov. 20, in Port, Jan. 10
RENDOVA (Br. bq.)	Bonanza	Sydney	Sp. Oct. 31, 19 N., 25 W., "All well"
RION	Amsterdam	Blyth	Arr. Dec. 21, in Port, Jan. 11
ROCK LIGHT†	Newport Nws.	Sunderland	Arr. Jan 10
ROMANY*	Bombay	Scesoe	Arr. Jan. 3
ROTTERDAM	New York	Amsterdam	P. Prawle Pt., Jan. 10
ROUMANIAN†	Newport Nws.	Antwerp	L. Jan. 5
RUSSIAN PRINCE	Liverpool	Havana	L. Jan. 5
SALAHADJI*	Penang	Soesoe	L. Dec. 13
SAN ANTONIO	London	Puerto Mexico	L. Dec. 13
SAN IGNACIO DE LOYOLA (Sp. bq.)	Pasages	New York	L. Oct 23
SANTA MARIA	Taltal	Pt. San Luis	Arr. Jan. 8
SANTA RITA	San Francisco	Honolulu	L. Dec. 20
SARANAC□	New York	Liverpool	Arr Dec. 27, in Port, Jan. 12
SAXOLEINE	Kustendje	Rouen	Arr. Jan. 12
SCHUYLKILL	Shanghai & Cebu	New York	Arr. Dec 24, in Port, Jan 1
SEMINOLE□	San Francisco	—	P Woosung, Jan. 8
SERVIAN†	London	Port Arthur (Texas)	P. St. Catherine's, Jan. 3
SNOWFLAKE	Cette	Newport	Arr. Oct. 22, in Port, Jan. 12
SOYO MARU	Yokohama	Payta	L. Nov. 3
SPONDILUS*	Bombay	Aroe Bay	L. Jan. 3
STANDARD	Philadelphia	Swinemunde	L. Jan. 5
STROMBUS*	Samboe	Rotterdam	Arr. Dec. 23, in Port, Jan. 11
SULTAN VAN LANGKAT*	Soesoe	Sydney	Arr. about Jan. 11
SUNLIGHT (Br. bq.)	Port Arthur (Texas)	Avonmouth	In Port, Jan. 11
SURAM	Tyne	Port Arthur (Texas)	Arr. Jan 11
SUWANEE□	Batoum	Lisbon	Arr. Jan. 11
SVIET	Flushing	Batoum	Sd. Plymouth, Jan. 3
TAMARAC□	Philadelphia	London	P. Del. Break., Dec. 31
TELENA*	Kustendje	Thameshaven	Arr. Jan. 10, in Port, Jan. 12
TEREK†	Newport N'ws	London	L. Dec. 30
TEXAS	New Orleans	Port Arthur (Texas)	Arr. Nov. 13
TIFLIS	Manchester	Philadelphia	Sd. Liverpool, Jan. 3
TIOGA□	Liverpool	New Orleans	P. Sand Key, Jan. 11
TONAWANDA□	London	Tyne	Arr. Jan. 11
TRINCULO	San Francisco	Tocopilla	Sd. P. San Luis, Dec. 16
TROCAS*	Shanghai	Balekpappan	L. Jan. 3
TUSCARORA	Tyne	New York	P. Dunnet Head, Jan 8
VEDRA	Liverpool	Port Arthur	Arr. Dec. 29
VILLE DE DIEPPE (Nor. bq.)	Philadelphia	Rouen	Arr. Sept. 7
VOLUTE*	Taketoyo	Karatzu	L Jan. 8
WASHINGTON	Philadelphia	Hamburg	Arr. Jan. 9, in Port, Jan. 11
WASHTENAW	Port San Luis	San Francisco	L. Dec. 7
WEEHAWKEN	London	Dublin	Arr. Jan 8
WILLKOMMEN	Stockholm	Hamburg	Arr. Jan. 8
WINNEBAGO	Balekpappan	New York	At P. Natal, abt. Dec. 24

Latest Market Intelligence.

LONDON OIL MARKET.

Supplied by Messrs. Benjamin & Gee, 31, St. Mary Axe, E.C.

Jan. 14th, 1910.

The following are the current quotations for Refined Petroleum :—Russian, 5¾d.; Roumanian, 7d.; American, 6d.-6¼d.; Water White, 7d.-7¼d.

LUBRICATING OILS.

Prices for these remain as follows :—

American pale, £6 10s. to £10 10s.
American dark cylinder, from £7 12s. 6d.
American filtered cylinder, from £10 12s. 6d.
No. 1 Russian, for Spot, £8 2s. 6d.

TURPENTINE.

Since our last report, American Turpentine has hardened considerably with a better enquiry :—American Spot 42s. 6d., Feb.-April 42s. 10½d., May-June 43s. 3d.

LIVERPOOL OIL MARKET.

Jan. 13th.

Refined oils are quiet, and sellers quote 6¾d., for Russian, Galician or Roumanian; and 7¼d. to 8¼d. per gallon for American.

LATEST AMERICAN PRICES.

New York, Jan. 13th.

Refined, in cases, is steady at 10·30; Standard White, 7·90; Credit balances, 1·40.

Philadelphia, Jan. 13th.

Standard White is now quoted at 7·90.

GERMANY.

Hamburg, Jan. 12th.

American, ·800–6·30 marks; Pennsylvanian, 6·40 marks; Galician, 6·30 marks. Russian and Roumanian not on the market.

RUSSIA.

Baku, Jan. 12th.

The market has still further declined. Crude oil is now quoted at 18½ copecs per pood spot, and 18¼ copecs January delivery. Kerosene, in ships, 24½ copecs spot; 27½ copecs next navigation. Mazout 8¾ copecs sellers; 8⅝ copecs buyers, spot.

BELGIUM.

Antwerp, Jan. 12th.

The petroleum market is without change. Price of Standard White, spot, 22·50 francs per 100 kilos.

ROUMANIA.

	Jan. 12th. Francs.
Crude oil from different fields, including pipe line charges, per 100 kgs.	3·60–3·70
Refined oil, exclusive of taxes, ex. refinery	8·30
Residuals in tank waggons, at refinery	3·40–3·50
Paraffin	110–120
PRICES FOR EXPORT.	
Refined oil, f.o.b., per 100 kgs.	6·75–7·00
Benzine, sp. gr. 0·710–0·715, f.o.b.	16–17
" sp. gr. 0·715–0·720 "	14·50–15·50
" sp. gr. 0·730–0·740 "	10–11
" sp. gr. 0·745–0.755 "	9–10
Lubricating, horticultural	32
" prime	35
" extra	40
" Royal, "Steaua Romana"	45
Imperial "Aurora"	45
Vacuum-Ideal "Vega"	52

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IMPORTS of PETROLEUM into UNITED KINGDOM

Specially prepared for this Journal by the Custom House.

FOR THE WEEK ENDED JANUARY 3rd, 1910—

Date.	Port and Importers.	Description.	No. of Gals.	Port Whence.
Dec.	London—			
28	Asiatic Petroleum Co. ..	Benzine	5,000	Rotterdam
28	Port of London Authority ..	Lub.	4,320	Hamburg
28	M. Record	,,	10,000	Trieste
28	Produce Brokers	,,	14,400	New York
29	British and Foreign Wharf .	,,	480	Antwerp
29	E. J. Walkenshaw	,,	6,000	Philadel,
29	Scott's Wharf	,,	3,500	New York
29	Mordaunt Bros.	,,	5,000	,,
29	Fielder, Hickman and Co. ..	,,	10,880	,,
29	,, ..	,,	2,600	,,
29	Anglo-American Oil Co. (Iroquois)	Lamp	2,097,810	,,
30	,, ,,	Gas	337,370	,,
30	,, ..	Lub.	51,160	,,
30	Page, Son and East ..	Lub. Gr.	240	Antwerp
31	Mercantile Lighterage Co. ..	Lub.	7,500	New York
31	Bowring Petroleum Co. (Mexican Prince)	Lamp	1,051,450	Philadel.
31	B. Jacob and Son	Lub.	5,000	Hamburg
31	Beck and Pollitzer	Lub. Gr.	120	New York
Jan.				
1	,, ...	Lub.	3,200	,,
18	Asiatic Pet. Co. Cardium) ..	Benzine	2,109,120	Pulo Samboe
3	Grindley and Co.	Lub.	6,000	New York
3	Produce Brokers' Co. ..	,,	8,000	,,
3	T. H. Lee	Lub. Gr.	90	Hamburg
3	Argo Steamship Co. ..	Lub.	250	Bremen
3	British and Foreign Wharf	,,	280	Antwerp
3	Page, Son and East ..	,,	80	,,
3	J. and R. Grant	Lub. Gr.	400	Brussels
Dec.	Liverpool—			
28	Pickfords, Ltd.	Lub. Oil and Paste	300	Hamburg
28	W. B. Dick and Co. ..	Lub.	7,960	Baltimore
28	Huxley and Co.	,,	2,820	Philadel.
28	G. B. Taylor	,,	19,400	,,
28	Bowring Petroleum Co. ..	,,	2,110	,,
28	Worthington and Boler ..	M. Colza	400	,,
28	,, ..	Lub.	4,200	,,
28	,, ..	Lub. Gr.	800	,,
28	Fellows, Morton and Clayton	Lub.	1,040	,,
29	Crew, Levick and Co. ..	,,	820	,,
29	Vacuum Oil Co.	Lub. Gr.	5,800	New York
29	,, ..	Lub.	16,000	,,
29	G. B. Taylor	,,	13,000	,,
29	D. Owen and Son	,,	1.790	,,
29	Meade-King, Robinson & Co.	Lub. Oil and Gr.	5,200	Baltimore
29	Anglo-American Oil Co. (Saranac)	Lamp	1,616,000	New York
30	Bramwell, Fern and Co. ..	L. Resid.	75,000	Batoum
30	,, ..	Lub.	155,750	,,
30	Meade-King, Robinson & Co.	L. Resid.	75,000	,,
30	,, ..	Lub	155,750	,,
30	,, ..	,,	2,000	,,
Dec.				
30	D. Currie and Co.	Lub.	1,220	Hamburg
Jan.				
1	Ismay, Imrie and Co. ..	,,	126,380	New York
1	Bramwell, Fern and Co. ..	,,	4,050	Philadel.
1	Crew, Levick and Co. ..	,,	20,120	,,
1	,, ..	L. Resid.	4,020	,,
1	,, ..	M. Colza	5,220	,,
1	American Line	Lub.	1,520	,,
1	G. B. Taylor	,,	20,840	,,
1	Meade-King, Robinson & Co.	,,	31,560	,,
1	E. Harrison and Co.	,,	4,800	,,
1	Worthington and Boler ..	,,	3,400	,,
1	W. B. Dick and Co. ..	,,	16,550	,,
1	Bowring Petroleum Co. ..	,,	2,160	,,
24/11	Meade-King, Robinson & Co. (Vedra)	Gas	8,040	Pt. Arthur
1	Fellowes, Morton & Clayton	Lub.	2,160	Philadel.
3	D. Owen and Sons	,,	1,940	Stettin
3	D. Currie and Co.	Lub. Gr.	250	Hamburg
3	Penwarden and Jackson ..	Lub	400	Antwerp
Dec.	Barrow—			
28	Anglo-American Oil Co. (Delaware)	Spirit	408,680	New York
	Bristol—			
30	Ford and Canning	Lub.	3,500	..
30	H. R. James and Co. ..	,,	53,160	,,
30	J. and R. Bush	,,	46,000	,,
30	Pickfords, Ltd.	Lub. Oil and Paste	210	Hamburg
	Grimsby—			
28	J. Sutcliffe and Son	Lub.	440	Antwerp
	Harwich—			
28	Great Eastern Railway ..	,,	160	,,
28	,, ...	,,	570	,,
	Hull—			
28	British Pet. Co. (Hyrcania).	Lamp	787,000	Kustendje
28	T. Wilson, Sons and Co. ..	Lub.	240	Bergen
11/12	Wilsons and N.E. Co. ..	Fuel	4,640	Hamburg
28	,, ...	Lub.	480	Antwerp
30	,, ...	,,	840	,,
30	,, ...	,,	360	Hamburg
30	Homelight Oil Co. (Hyrcania)	Lamp	1,059,100	Kustendje
	Manchester—			
28	Wilson, Son and Co. ..	Lub.	200	Rotterdam
29	Meade-King, Robinson & Co. (Tiflis)	,,	181,250	Batoum
29	,, ..	,,	3,880	,,
29	Bramwell, Fern & Co. (Tiflis)	,,	181,250	,,
29	,, ..	,,	3,880	,,
29	J. T. Fletcher and Co. ..	,,	80	Antwerp
29	,, ...	,,	160	,,
29	Bramwell, Fern and Co. ..	,,	12,140	Philadel
30	Meade-King, Robinson & Co.	M. Colza	7,800	,,
30	,, ...	Lub.	22,680	,,
30	Diamond Lubricating Co. ..	Lub. Oil and Gr.	2,880	,,
30	,, ..	Lub.	10,000	New York
30	R. Tomlinson	,,	2,610	,,

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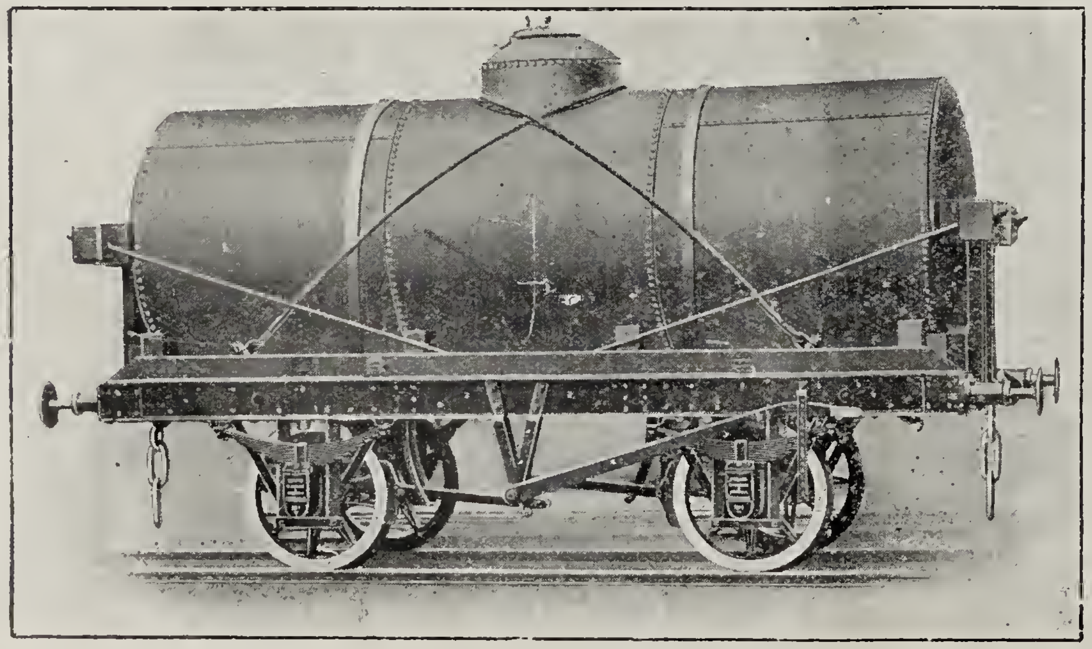

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TELEGRAMS:
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No corrosive fumes given off. Prevents rust at the joints and consequent leakage. Stronger work. Less solder required.

IMPORTS.—(*Concluded*).

Date. Dec.	Port and Importers	Description.	No. of Galls.	Port Whence.
	Manchester—			
30	Manchester Liners, Ltd.	Lub.	1,800	Philadel.
30	G. B. Taylor	,,	102,800	,,
30	,,	,,	141,240	,,
	Newcastle—			
30	P. H. Matthiesson and Co.	,,	220	Bergen
30	Tyne-Tees S.S. Co.	Lamp	4,000	Hamburg
30	,,	Lub.	440	,,
	Plymouth—			
28	T. Nicholson and Co.	,,	130	,,
	Southampton—			
29	P. E. Curry	,,	2,690	New York
	Glasgow—			
28	Clyde Shipping Co.	Lub. Gr.	120	Antwerp
28	J. and P. Hutchison	Lub.	200	Rouen
29	Anchor Line	,,	60	New York
	Leith—			
28	G. Gibson and Co.	,,	4,680	Dunkirk
28	,,	,,	2,800	Antwerp
28	W. Graham-Yooll and Co.	Lamp	8,720	Hamburg
28	,,	,,	8,720	,,
28	J. Currie and Co.	Lub.	780	,,
	Belfast—			
28	Corporation Gas Co. (Prudentia)	Gas	404,030	Pt. Arthur
28	G. Heyn and Sons	Lamp	1,000	Riga
31	J. C. Pinkerton and Co.	Lub.	180	Hamburg
	Deduct to correct—		11,634,820	
	Dublin—			
2	Alliance Gas Co. (Caucasian)	Gas	441,080	Philadel.
	Total for the Week		11,193,740	

FOR THE WEEK ENDED 10th JANUARY, 1910—

Date. Jan.	Port and Importers.	Description.	No. of Galls.	Port Whence.
4	Port of London Authority	Lub.	3,960	Hamburg
4	Scott's Wharf	,,	4,000	New York
4	Mordaunt Bros.	,,	6,700	,,
4	Langley, Smith and Co.	,,	4,000	,,
5	E. Clark	,,	11,560	,,
5	Anglo-American Oil Co.	,,	96,600	,,
5	Fielder, Hickman and Co.	,,	8,720	,,
6	Mercantile Lighterage Co.	,,	54,630	,,
6	Bowring Petroleum Co.	,,	7,220	Philadel.
6	Union Lighterage Co.	,,	3,020	,,
6	Mordaunt Bros.	,,	2,500	,,
6	Schlieman's Oil Co.	,,	2,600	,,
6	Livingstone, Hutton and Co.	Lub. Gr.	30	Antwerp
6	Page, Son and East	Lub. Oil and Gr.	320	,,
6	Argo Steamship Co.	Lub.	250	Bremen
7	A. Brown and Co.	Lamp	4,250	Philadel.
7	Thames Tug & Lighterage Co.	Lub.	14,400	,,
7	A. Brown and Co.	,,	10,000	,,
7	Langley, Smith and Co.	,,	2,400	,,
7	United Asbestos Co.	,,	1,020	,,
7	Meade-Ring, Robinson & Co. (Batoum)	Gas	1,286,130	Pt. Arthur
7	British and Foreign Wharf	Lub.	240	Antwerp
7	Asiatic Pet. Co. (Telena)	Benzine	950,400	Kustendje
8	A. Duckham and Co.	Crude	960	Trinidad
8	J. W. Baker	Lub.	4,070	Philadel.
8	Produce Brokers' Co.	,,	2,000	,,
8	Port of London Authority	,,	320	Hamburg
10	Van Dam and Co.	Tar Oil	2,520	Rotterdam
10	Page, Son and East	Lub. Oil and Gr.	200	Antwerp
10	J. Harrison	Lub.	210	,,
10	Snowden, Sons and Co., Ltd.	,,	2,020	Hamburg
10	T. H. Lee	Lub. Gr.	320	,,
10	Asiatic Pet. Co. (Neerlandia)	Benzine	336,400	Rotterdam
	Liverpool—			
4	D. Currie and Co.	Lub.	240	Hamburg
4	Bancroft and Co.	Lub. Gr.	120	Antwerp
5	Huxley and Co.	,,	130	,,
5	Pickfords, Ltd.	Lub. Oil and Gr.	1,090	Hamburg
5	D. Owen and Son	Lub.	90	Philadel.
6	,,	,,	900	New York
6	Liverpool Storage Co.	,,	400	,,
6	W. B. Dick and Co.	,,	1,980	,,
6	,,	,,	7,970	Baltimore
6	Meade-King, Robinson & Co.	,,	2,600	,,
6	Shropshire Union Rail. Co.	,,	5,400	New York
6	George B. Taylor	,,	26,000	,,
6	Fellows, Morton and Clayton	,,	1,500	,,
6	Vacuum Oil Co.	,,	20,800	,,
6	Burnaby and Chantrell	Lub. Gr.	1,080	,,
7	Bramwell, Fern and Co.	Lub.	370	,,
7	,,	,,	4,990	Baltimore
7	Ismay, Imrie and Co.	,,	1,000	New York
10	C. C. Wakefield and Co.	Lub. Gr.	300	Antwerp
10	R. Crooks and Co.	,,	220	New York
10	Valvoline Oil Co.	Lub.	13,330	,,
10	W. Gibson and Sons	Lamp	2,050	Boston
	Bristol—			
4	W. G. Clarke	Lub.	360	Antwerp
4	,,	M.Colza	510	,,
6	Pickfords, Ltd.	Lub.	240	,,
6	First Anglo-Russian Oil Co.	L.Resid.	2,000	Hamburg
6	Pickford's, Ltd.	Lub. Oil and Paste	810	,,
10	Anglo-Bosphorus Oil Co.	Lub.	2,530	,,
10	Ford and Canning	,,	5,600	New York
10	J. and R. Bush	,,	7,000	,,
10	W. G. Clarke	,,	280	Antwerp
	Cardiff—			
4	Bristol Steam Nav. Co.	Lub.Gr.	280	,,
6	,,	Lub. Oil and Paste	870	Hamburg
	Grimsby—			
8	J. Sutcliffe and Son	Lub.	600	Antwerp
4	,,	,,	340	,,
	Harwich—			
4	Great Eastern Railway	Lub. Gr.	400	,,
	Hull—			
4	T. Wilson Sons and Co.	Tar Oil	640	Gothenburg
4	,,	Lub.	19,480	New York
4	W. Gilyott and Co.	,,	29,720	,,
4	Wilsons and N.E. Co.	,,	960	Dunkirk
6	,,	,,	2,360	Hamburg
6	,,	,,	320	Antwerp
8	,,	,,	450	Hamburg
	Manchester—			
4	Bramwell, Fern and Co.	,,	10,810	Philadel.
4	,,	,,	12,000	,,
4	G. B. Taylor	,,	51,560	,,
4	Manchester Liners	,,	5,200	,,
4	Liverpool Storage Co.	,,	15,820	New York
4	W. Hodgson and Co.	,,	2,760	,,
4	Produce Brokers' Co.	,,	2,400	,,
4	M. Wells and Co.	,,	1,600	,,
4	Bramwell, Fern and Co.	,,	1,100	,,
4	W. Hodgson and Co.	,,	800	Riga
4	Meade-King, Robinson & Co.	,,	11,000	Philadel.
4	,, ,,	M.Colza	2,600	,,
5	Crew Levick and Co.	Lub.	15,950	,,
5	,,	M.Colza	3,170	,,
6	Worthington and Boler	Lub.	760	,,
7	Bramwell, Fern and Co.	,,	18,300	,,
10	Meade-King, Robinson & Co.	,,	28,040	,,
10	,, ,,	Lamp	5,200	,,
10	D. Currie and Co.	Lub. Oil and Gr.	1,200	Hamburg
	Newcastle—			
6	Tyne Tees SS. Co.	Lub.	800	Antwerp
6	,,	Lamp	4,000	Hamburg
	Middlesbro'—			
4	E. Harris and Co.	Lub.	240	Antwerp
	Southampton—			
4	P. E. Curry	,,	370	New York
6	White Star Line	,,	39,000	,,
	Swansea—			
7	Burgess and Co.	L.Paste.	200	Hamburg
	Aberdeen—			
4	R. C. Reid and Co.	,,	80	,,
4	,,	Lamp	6,040	,,
	Dundee—			
4	A. Gray	,,	390	,,
4	D. Alexander and Sons	Lub.	4,200	,,
6	,,	,,	400	,,
	Glasgow—			
4	Clyde Shipping Co.	Lub. Gr.	360	Antwerp
5	Allan Bros. and Co.	Lamp	2,000	Philadel.
5	,,	Lub.	34,100	,,
15/12	Anchor Line	,,	22,240	New York
	Grangemouth—			
6	J. Currie and Co.	L.Paste	260	Hamburg
6	,,	Lub.	3,440	,,
6	,,	Lub.Oil and Paste	280	,,
6	W. G. Yooll and Co.	Lamp	4,800	,,
6	,,	,,	4,800	,,
	Leith—			
6	Henderson and McIntosh	Lub.	15,860	Philadel.
6	J. Currie and Co.	,,	700	Hamburg
	Belfast—			
6	J. C. Pinkerton and Co.	,,	60	,,
	Cork—			
4	Palgrave, Murphy and Co.	,,	50	,,
	Dublin—			
4	Palgrave, Murphy and Co.	,,	1,200	Riga
	Deduct to Correct—		3,328,450	
	Hull—			
22/12	British Pet. Co. (Hyrcania)	Lamp	3,870	Kustendje
	Manchester—			
24/12	British Pet. Co. (Danubian).	Gas	23,870	Pt. Arthur
29/11	Anglo-American (Aug. Korff)	Lub.	10,610	Philadel.
	Total for Week		3,290,100	
	Total for the Fortnight		14,483,840	

The Petroleum Review.

By PAUL DVORKOVITZ.

Vol. XXII. *(New Series.)* January 29th, 1910. No. 469

THE PETROLEUM REVIEW:

The ANNUAL SUBSCRIPTION for both English and Foreign readers is 26s., including Postage. Single Copies may be had at the offices at 1s.

The Editor would esteem it a favour if readers, when communicating with the various firms advertising in our pages, would mention the "Review."

Contributions upon items of interest are always welcomed from subscribers, but in each case these should be accompanied with the name and address of the sender, not necessarily for publication.

Editorial Notes.

A Much Desired Conference. We have from time to time referred to the great trade which has sprung up during recent years in this country in regard to the importation and distribution of motor spirit, and we have also pointed out how of late a policy has been instituted by which all the importing and distributing companies have fought one against the other, with a view to securing as big a slice of this country's trade in motor spirit as is possible. During the last several months—in fact throughout the whole of last year—it is an open secret that the importation and distribution of motor spirit in this country has been carried on by the several concerns who cater for the motor industry's needs, at practically no profit at all, while, in not a few cases, profits have given place to losses. We have all along urged the adoption of that sound and common sense policy of "live and let live," and it is therefore particularly pleasing to us to know that at the present time there are in this country representatives of the suppliers of motor spirit whose direct aim is to make some arrangements for preventing a continuance of that suicidal policy of cutting prices. We sincerely trust that the efforts of these several gentlemen will be entirely successful, for the policy adopted of late by the various distributing companies in regard to motor spirit has been deplorable.

The Situation in Galicia. The latest reports from Galicia all emphasise the improved condition of things there as relating to the petroleum industry. The production still continues to increase, and for the past twelve months it reached the record figure of 2,150,000 tons, but in spite of this, oil prices are rising. Those in the best-informed circles contend that the Galician industry is now entering what is hoped will be a permanent period of real progress. To-day the price of oil stands at 25·30 kronen per ton, a most satisfactory figure, and one which has not been reached for nearly three years. Efforts are now being made to found a representative cartel in order to control the price of kerosene, and the operations of this new organisation are viewed with much optimism. The advent of the new refineries within the next few months, particularly the Government refinery at Drohobycz, is looked forward to with eager expectation, as it is generally believed that the operations of these, handling as they will nearly 750,000 tons of crude oil per annum, will greatly tend to bring about the continuance of the highly satisfactory present conditions.

Ousting American Products from France. Considerable alarm is now being felt by the large petroleum exporters in America at the serious effect which the new French tariffs are having upon the American petroleum export business. It will be remembered that prior to the expiry of the reciprocity treaty with France last October, American oil entering France had to pay 5·12 cents per gallon for crude, and 7·31 cents per gallon for refined oils and spirits. These rates are still in force so far as every other country is concerned in exporting to France, but American oil has now to pay exactly double the rates. As a consequence, the importation of American oil into France has practically stopped, and in view of this the American exporters are urging the Government to renew the treaty, otherwise the American petroleum trade with France will be permanently lost. A special bulletin on the subject has recently been prepared by the Bureau of Statistics, Washington, and this shews that during November last, the first month when the new duties were imposed, the export of both crude and refined oil to France ceased entirely. A similar treaty which America has with Spain expires next August, and there is much concern among American oil exporters lest this reciprocal treaty too shall not be renewed.

The American Oil Fields in 1909. From the specially written retrospect of the petroleum industry in America during 1909, which covers several pages in the present issue, readers will be able to gather a good impression of the trend of events during the past year in that greatest crude oil producing country in the world. The fact that the total production of crude oil in the American territories declined several million barrels last year cannot be taken as evidence of a failing supply. On the other hand, it is exactly the opposite state of things which tended to curtail America's crude oil production last year. The Mid-Continent and the Illinois fields were the two great centres of production whose output did not come up to the figures for the preceding year, and in each of these fields it is well-known there was an understanding that production should be curtailed as much as possible in order that the stocks above ground could be reduced, and the falling crude oil market given a chance to recover. The outstanding feature in reviewing the situation is the remarkable progress which California is making. In spite of the constantly-increasing monthly production of the Californian fields—for last December over 5,000,000 barrels were produced—this great output is insufficient to meet the demands of the market, with the result that stocks are being drawn upon and prices advancing. And the outlook was never more favourable than to-day.

IMPORTANT DISCOVERY IN HUNGARY.

(*From Our Own Correspondent.*)

At Korosmezo on the Hungarian side of the Carpathian mountains, a hand well was recently put down, and at a shallow depth crude oil was discovered which since has been constantly pumped.

On the 20th January, a large quantity of gas at great pressure and mixed with oil was suddenly encountered. The oil is stated to contain a large percentage of light hydrocarbons, and is of somewhat similar composition to that found in West Galicia.

It is proposed to commence a trial borehole early in the spring at the spot where the oil has been found.

The Korosmezo district has been known for many years to be oil-bearing. In fact, some fifteen years ago an English company commenced to exploit the district for oil, one of the directors of the company being Dr. Dvorkovitz, but at that time, though oil was encountered, it was considered not to be in sufficient commercial quantities to warrant further exploitation, and the project was, therefore, abandoned.

If the results of the deep bore hole are successful, there will then be practically in the centre of Europe a new oil field of something like 20,000 acres in extent.

THE SECOND SAKHALIN SYNDICATE, LTD.

In recording the registration of this company in the last issue of the REVIEW (upon page 43) we gave the names of the first directors as being Sir Henry White, C.V.O., and Dr. Paul Dvorkovitz. We regret that we omitted to mention the name of H.S.H. Prince Blucher von Wahlstatt, who is also one of the first directors.

AN ECONOMICAL OIL NIGHT LIGHT.

Under the registered title of "Luxol," an improved safety night light has recently been put on the market, which possesses several advantages over the ordinary tallow or wax night light, besides being incomparably more economical. "Luxol" burns ordinary illuminating oil, and in such small quantities that the inventor claims it will give 180 hours' light at the small cost of one penny. The new night light is fitted with an imperishable wick, which requires neither trimming nor adjusting, while the container is fitted with an ingenious arrangement whereby the liquid oil is absorbed. The "Luxol," which is the very essence of simplicity, can be obtained at all oil stores at a most trifling cost.

A NEW PUBLICATION.

"*The Transportation of Gases, Liquids and Solids.*"—By Dr. O. NAGEL. Published by the Author, P.O., Box 385, New York. Price 8s. 6d.

Under the above title, the author has succeeded in presenting a book which is bound to be of inestimable value to all metallurgical, mining and mechanical students. The subjects treated are of wide importance, and in view of the great application of steam, compressed air and water under pressure for transportation purposes, it does seem strange that such a valuable work has not made its appearance years ago. The book, which is particularly well illustrated, is divided into six parts, and in every chapter the construction, theory, operation and application of each apparatus is fully described, and in a manner readily understood by the student. The first part of the book deals with the transportation of gases, the second with the transportation of liquids, the third with the transportation of solids, while in the fourth part the appliances for atomising liquids are explained. The fifth chapter contains a description of jet condensers, while in the sixth part we find a treatise upon the theory of the jet machines. There is considerable experimental data also given, and many educational hours can be spent by the industrial engineer in perusing the two hundred pages of this valuable work.

. . The Making of Drilling Tools in England. . .

The photograph here published shews a busy corner in the machine shops of Mr. John M. Thom, of Patricroft, Lancashire. It was taken last week just prior to the shipment of a large consignment of oil drilling tools, etc., from the works to the Island of Timor, to the order of the Timor Syndicate, Ltd.

The Works of the E. W. Bliss Co.

..THE AMERICAN HOME OF PETROLEUM CAN MACHINERY..

The name "Bliss" is no doubt the one most widely known in connection with the building of machinery for the sheet metal working industry. This is due in a great measure to the many new and improved machines which are constantly being designed and built by the E. W. Bliss Co., who, as the leaders in developing sheet metal working machines, have taken advantage of the advanced art of rolling sheet metal and the consequent possibilities opening every day in the application of sheet metal parts to replace castings and light forgings, the substitution of sheet metal supplying a superior and uniform article at reduced manufacturing costs.

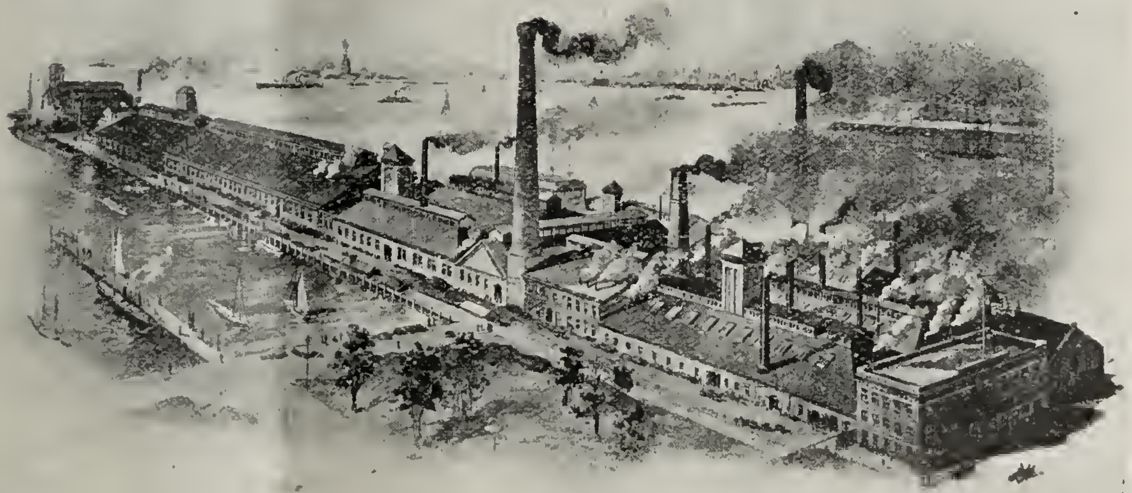
E. W. BLISS CO PRESSES AND DIES

The Bliss Co., by its progressive methods, has contributed much to the development of the art of working sheet metal, thereby placing within the reach of all many articles which at one time would have been considered luxuries. Under the roof of this concern is found the American home of petroleum can machinery.

Coincident with the rapid development of sheet metal working—for certainly it has been rapid—is the growth of the E. W. Bliss Co. That this company has seen many changes will be noted from the following brief history.

It had its beginning, some forty-three years ago, under Mr. John Mays. About a year later, in 1867, Mr. E. W. Bliss joined Mr. Mays, under the firm name of Mays and Bliss. In the year 1871 Mr. J. W. Williams bought out Mr. Mays' interest, from which date the firm was known as Bliss and Williams. Mr. Williams retired from the firm in 1881, after which the business was conducted by Mr. Bliss alone until 1886, when the E. W. Bliss Co. was organised, under the laws of New York. In 1890 an English syndicate bought a controlling interest in the business, after which it was conducted under the name of E. W. Bliss Co., Ltd., until it was again, in 1893, bought back by the American stock-holders, and reorganised as an American Co.—the present E. W. Bliss Co.

During the time in which all these changes were taking place, the company continued to grow and expand, necessitating changes in quarters, which, however, were mainly confined to the immediate vicinity of the present main works. The buildings occupied during the earlier periods have now disappeared to make room for more modern ones demanded by the march of progress.



We shew in accompanying illustrations the different buildings now occupied by this company, which in their various departments comprise some 400,000 square feet of space, or about nine acres, in addition to which some 150,000 square feet, or about three and one-half acres, has been reserved with a view to future extensions. In these works there are employed about 1,600 men, each in his particular branch of industry, which, when all are combined, turn out the machines which make possible the practical and economical production of sheet metal articles ranging from the second hands of watches, made in sub-presses, to the steel barrels used for transporting oil, made in giant presses, which variety gives an idea of the large number and different types of machines built by the Bliss Co.

The development of petroleum can machinery built by this company is a specialty which no doubt is most interesting to the readers of this journal. With the continuously extending consumption of petroleum, it became more and more necessary that considerable care and attention should be given to the packages used for its transportation and distribution, with the result that the development of the manufacture of petroleum can machinery has had for years the special attention of the E. W. Bliss Co., who supply by far the major portion of this class of machinery used not only in America, but in every country on the globe where petroleum is canned. The present standard petroleum can is the result of many years of experience in developing a suitable package of the most convenient form best adapted for shipping, and to hold a given quantity of oil, in conjunction with producing a perfectly tight package in a practical and economical manner. This type of can has been adopted and is now used by all the largest refineries and canners of petroleum in every country.

Forging Shop.

After the size and style of the can had been determined, the final development of the can commenced with the using of the squeezed top and bottom, which, however, did not give complete satisfaction.

The Foundry.

The double seamed can was next tried, and the Bliss Co. still continue to supply plants for producing this style of can when desired, but this type was never widely adopted because of its increased material and labour cost. This increased cost has been questioned by some, but actual demonstration in manufacture proves that it is a fact.

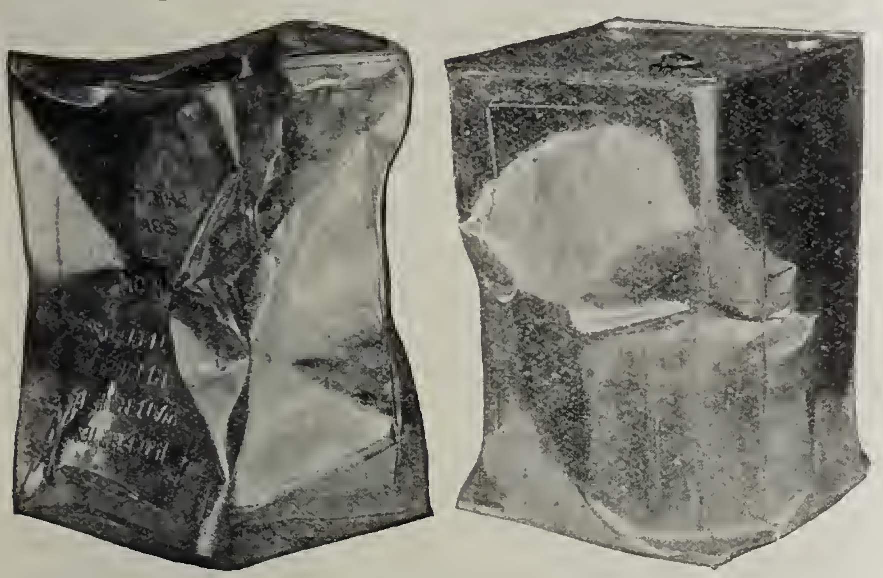
After the double seamed can, came the hemmed edge can, which has since been adopted by all the largest refineries because it has proved to be stronger, more reliable and especially advantageous in the process of manufacture where a large number of cans are produced. Experiments with this style of seam have shewn that the leakage is reduced to practically nothing, and the fact that the largest producers and users of petroleum cans in the world adopt these cans as their standard amply attests their points of superior merit. The construction of this can was fully described in the July 6th (1907) issue of the Petroleum Review, and in the accompanying illustrations are shewn several cans of this type, which have been subjected to severe tests, one of which has been dropped, when filled, a distance of six feet, the other having been heavily hammered. In both cases the tops and bottoms remain strongly intact, which is good proof of the strength of the hemmed edge can.

In passing through the different departments of the Bliss Co.'s works at Brooklyn, in which the petroleum can machinery is built, one sees in all stages of manufacture, from the rough castings to the finished machines in the inspection room undergoing tests, large numbers of top and bottom presses, body trimming, panel stamping, hook forming and bending presses, hemming, squeezing, seam rolling and soldering machines, each of which, when completed, is to perform some particular function in the production of the standard five-gallon can, also can-filling machines, and at the present time there are a number of complete plants under course of construction.

The Bliss Co. call attention to the metal used in casting these machines, which is of a special strong and tough mixture, particularly adapted for the purpose for which it is used. This important feature in the building of presses is given careful attention, and taken care of in the company's own foundry, shewn in the accompanying illustration, in which the daily cast totals 50 to 60 tons. The company's forge shop, in which the shafts and other forgings are produced, is also shewn. In all the various departments, the company have installed the most modern, up-to-date machinery and equipment.

They control under their own roof each stage of manufacture, from the time when the first line is drawn in the designing department, in which are employed over 50 designers and draughtsmen, until the machine is finished and ready for inspection, and by this method they are able to produce the high grade petroleum can machinery for which the company has maintained a world-wide reputation.

We might have described more in detail each department were it not that the limited space will not allow, and, in concluding, we would mention that in order to better serve their various customers, the company, in addition to their American works, maintain two branch factories, whose offices are located at 114, Queen Victoria Street, London, E.C., England, and 100, Boulevard Victor Hugo, St. Ouen sur Seine (Paris), France, at both of which places many interesting machines may be seen in operation.



Hemmed Edge Cans after being Subjected to Severe Tests.

◆

NEW COMPANY.

SPANISH SHALE OIL SYNDICATE, LIMITED.

Registered January 16th, with a capital of £12,100, in 12,000 "A" shares, of £1 each, and 2,000 "B" shares, of 1s. each. Objects: To carry on in Spain or elsewhere the business of winners and workers of shale oil and other substances, etc. Private company. The first directors (to number not less than two nor more than five) are to be appointed by the signatories. Qualification, one "A" or "B" share. Remuneration, £123 each per annum (chairman £150).

EXPORT OF AMERICAN PARAFFIN WAX.

The exports of American paraffin wax during November last, as compared with the figures for the corresponding month of 1908, are given in the following table, the quantities being in pounds:—

Exported to—	1909.	1908.
United Kingdom	12,019,834	4,917,199
Belgium	762,374	28,578
France	112,779	15 592
Germany	2,114,199	1,082,400
Italy	2,168,286	527,719
Netherlands	1,393,146	489,638
Other European Countries.. ..	565,995	673,759
Central American States and British Honduras	98,601	125,874
Mexico	1,007,458	948,062
South America	46,653	72,749
Japan	469,111	—
British Australasia	399,065	289,999
Other Asia and Oceanica	1,752,548	1,399,770
British Africa	386,129	185,551
All Other African Countries ..	612,018	654,609
Other Countries	1,142	6,514

◆

THE VALUE OF AMERICAN PETROLEUM AND NATURAL GAS.

The following table, taken from a United States Geological Survey Bulletin just issued, gives the value of natural gas and of petroleum and their combined value in 1907 an l 1908, by States, arranged in the order of the value of the combined production:—

State.	Value of natural gas.	Value of crude petroleum.	Value of natural gas and crude petroleum.
Pennsylvania ..	$18,844,156	$17,579,706	$36,423,862
West Virginia ..	16,670,962	15,852,428	32,523,390
Kansas	6,198,583	18,478,658	25,094,462
Oklahoma.. ..	417,221		
Ohio	8,718,562	14,769,888	23,488,450
Illinois	143,577	16,432,947	16,576,524
California ..	168,397	14,699,956	14,868,353
Alabama	178,276	—	14,643,172
Louisiana ..		4,063,033	
Texas		10,401,863	
Indiana	1,572,605	4,536,930	6,109,535
New York ..	766,157	2,127,748	2,893,905
Kentucky ..	380,176	862,396	1,242,872
Tennessee ..	300		
Arkansas	126,582	272,813	421,278
Colorado			
Wyoming		21,883	
Utah	17,010		
Michigan	—	6,500	23,510
Missouri	—		
North Dakota ..	19,500	—	19,500
South Dakota ..	235	—	235
Oregon	100	—	100
	54,222,399	120,106,749	$174,329,148

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THE PETROLEUM INDUSTRY OF ROUMANIA.

STATISTICS FOR 1909.

The Roumanian petroleum industry during 1909 passed through a very successful period of its history. The output of crude oil constituted a record, the approximate figures for the twelve months being 1,293,483 tons as against 1,147,727 tons in 1908. The crude production for the closing month of the year, 118,000 tons, was the largest of the year, but during ten of the twelve months the figures were over 100,000 tons.

The crude oil production month by month is given in the following table, together with the production for the various months of 1908, so that comparisons may easily be made. The figures are: —

	1909. Tons.	1908. Tons.
January	88,906	100,448
February	89,643	90,308
March	101,592	97,968
April	108,163	93,588
May	113,541	99,792
June	109,725	88,624
July	117,184	98,774
August	116,286	97,765
September	110,952	99,494
October	110,983	96,875
November	108,508	90,529
December	118,000	93,561
Total	1,293,483	1,147,727

From the above table it will be seen that the increase for the year is almost 150,000 tons, a figure which most conclusively shews the rapid advance which the Roumanian petroleum industry is making.

The production of the principal producing firms during the year, as compared with their respective production during 1908, will be found in the following table. It will be seen that in the case of the Steaua Romana the increase is very remarkable. The figures given are in tons:—

Firm.	1909.	1908.	Increase or Decrease.
Steaua Romana	438,071	330,319	+107,752
Regatul Roman	201,500	211,910	− 10,410
Concordia	112,317	167,433	− 55,116
Romano-American	120,357	111,447	+ 8,910
Astra Co.	84,990	56,870	+ 28,120
Trajan Co.	43,679	36,031	+ 7.648
Colombia Co.	34,333	26,280	+ 8,353
International Co.	33,477	33,781	− 304
Alpha Co.	22,662	11,106	+ 11,556
Aquila Franco-Romana	21,162	23,697	− 2,535
Nafta Co.	20,870	19,852	+ 1,018
Anglo-Roumanian Pet. Co.	8,285	3,001	+ 5,284
Arnheemsche Pet. Maats.	6,503	9,142	− 2,639
Italo-Romana Co.	4,347	3,554	+ 793
Galo-Romana Co.	3,353	5,894	− 2,541
Romano-Belgian Co.	2,777	1,198	+ 1,579
Apostalache Co.	1,207	862	+ 345
Prima Soc. de Forage	1,956	—	+ 1,956
Olandeza Romana Co.	1,731	2,488	− 757
Nederlandsche Pet. Maats.	483	1,211	− 728
I. Koster	46,930	2,319	+ 44,611
Seceleanu Bros.	18,970	17,044	+ 1,926
Stefanescu and Co.	3,850	4,116	− 266
Enterprise Co.	1,385	4,836	− 3.451
Montana	1,191	952	+ 239
Carre, Wenger and Co.	1,480	1,719	− 239
Coroana Romana	2,300	1,330	+ 970
Germano-Romana	3,316	—	+ 3,316
Independenta (M. Bloc)	1,000	3,432	− 2,432

THE OIL AND OZOKERITE COMPANY, LIMITED.

With reference to this new company, whose remarkable proposals were adversely criticised by us in our last issue, we have received a letter from a gentleman prominently associated with the petroleum industry in Galicia, in which he says:—

"I am glad to see by your article of January 15th in the REVIEW that you have shewn up the concern known as the Oil and Ozokerite Co., Ltd., in such a fearless manner. It will indeed be a crime if those in the know allow this scheme to go through, for one can call it nothing but a scheme, and a very shady one at that.

"I do hope your article will have the desired effect, but in any case I hope you will not hesitate to use your wide influence with the financial press of nipping this proposal in the bud. If, on the other hand, it should succeed in going through, one may as well be prepared for a complete stoppage of all English investments in Galicia for the next twenty years, for it will be the biggest collapse that has ever taken place in the oil business, and it is bound to discredit Galicia."

In conclusion, our correspondent states that in spite of our strong remarks, we have reported far too favourable upon the scheme. He points out that he has had 17 years' experience in the oil and ozokerite business, and he has been liquidator of no less than three concerns, because they did not pay, and so those who put their money in them lost it all.

◆

CAPITAL IN THE ROUMANIAN PETROLEUM INDUSTRY.

In its current issue, the *Moniteur du Petrole Roumain* gives some very interesting details of the capital involved in the Roumanian petroleum industry. At the end of last year there were 74 companies, societies or groups of individuals operating in the fields, and the nominal capital of these 74 concerns amounted to 249,438,100 francs—approximately £10,000,000. As our readers are well aware, the Steaua Romana with its nominal capital of £2,000,000 is by far the largest company operating for petroleum in Roumania. Then comes the Concordia and Regatul Roman companies, each with a nominal capital of about £1,000,000, while the next four operating companies with large capitals are the Italo-Romana, the Romano-American, the International, and the Aurora. The nominal capital of the Italo-Romana is 15,000,000 francs, of the Romano-American 12,500,000 francs, of the International 12,600,000 francs, and of the Aurora 13,700,000 francs. Ten of the concerns operating in the Roumanian fields have each capitals of £4,000.

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THE HOMELIGHT OIL COMPANY, LIMITED.

The Members of the Northern Branch Dine at Manchester.

The annual dinner of the members of the Northern branch of the Homelight Oil Co., Ltd., was held at the Albion Hotel, Manchester, on Friday, the 21st inst., and was in every way an unqualified success.

It is now five years ago since the inaugural dinner of the Manchester branch was held in that city, and the intervening annual convivial events have year by year done much to promote that *esprit de corps* among the various branches of the staff, without which no concern can truly be said to be successful. But the gathering of yesterday week was of much greater importance than any of its predecessors: it was the first gathering of the members of the Northern branch of the Homelight Oil Co.—a branch but recently created, taking in the whole of the northern and midland counties, from Newcastle-on-Tyne in the north to Birmingham in the south, Hull in the east and Liverpool on the west coast.

The annual dinner was followed by a most enjoyable evening's entertainment, and from first to last both the members of the staff and the visitors enjoyed themselves to the full, thanks to the admirable way in which the stewards — Messrs. H. F. Lyman, H. Wilberforce, E. C. Wilde, J. H. Warrington, J. W. Pritchard, H. H. Mann and T. H. Watson—carried out their duties.

Mr. Geo. H. Watson, the Company's General Manager.

Mr. Geo. A. Cartali, the manager of the Northern branch at Manchester, took the chair, and in the vice-chairs were Alderman N. Ramsden, of Bolton, and Mr. W. C. Sneath, while the visitors included Mr. Geo. H. Watson, the general manager of the Homelight Oil Co.; Mr. A. Joynson (the Manchester Ship Canal), Mr. R. E. Fewtrell (manager of the London branch of the Homelight Oil Co.), Mr. J. Dunn and Mr. C. S. Holiday (Manchester), and Mr. A. Lidgitt (representing Dr. Dvorkovitz, the company's technical adviser).

After full justice had been done to an exceedingly well-served repast, the toast list was opened, the Chairman proposing the loyal toast of "The King," which was received with musical honours.

The Chairman then submitted the toast of "The Homelight Oil Co." Mr. Cartali said it was impossible for him to put into words the pride he felt that evening in presiding over that large gathering, and in the fact that the honour fell to him to propose the principal toast—that of the Homelight Oil Co., Ltd. But he was in rather an unfortunate predicament, inasmuch as his predecessors who had proposed that toast—he alluded particularly to Mr. Watson—had practically said everything that could be said in connection with the toast. An old philosopher once said that when in a difficulty, the wisest course to pursue was to throw that difficulty on to someone else. Well, he intended to throw it upon the gentleman who was to respond.

But he was in a fortunate position that evening, for it fell to his lot to preside at the first gathering of the Northern branch of the company. As they all knew, that Northern branch was an amalgamation of the old Manchester and Hull branches, and within its limits a vast expanse of territory was embraced, stretching right away from the wilds of Ashington, to the north of Newcastle, down to the centre of civilisation and tariff reform—Birmingham. With reference to the past year, they all had to regret that oil prices had been so unremunerative during the latter part of it. New competition had come along, and that too had assisted to keep prices down at a very low level. Still in spite of these things, the Homelight Oil Co. had more than held its own. He could only trust that in the near future matters would improve, and that the Homelight Oil Co. would continue its successful career. He therefore desired to wish the Homelight Oil Co. every possible success, and with the toast he had great pleasure in coupling the name of their general manager—Mr. G. H. Watson.

The toast having been enthusiastically honoured, Mr. Geo. H. Watson, in a few well chosen words, responded. He thanked the company very kindly for the manner in which they had received the toast of success to the Homelight Oil Co., and for having so warmly received his name in connection with it. Though the past year had been far from good so far as prices were concerned, he was sure they would all echo his sentiments when he said they were looking forward to better times in the future. It had been a very trying time for the company's staff during the past twelve months, but he was glad to say they had stuck to their guns and done their best for the company. They in London were always proud of the members of their northern branch, for they looked upon them as an example to the whole of their employés in other parts of the country. It was a pleasure for him to be among them that evening, and to find that such a kindly feeling permeated the whole of the staff. On behalf of the directors of the company, and also for himself, he thanked those present for their hearty reception of the toast.

Mr. Watson then proposed the toast of "The Northern Branch Staff." He had to admit that that evening he was in a difficulty in speaking to that toast, for in the room they had Mr. Fewtrell, the manager of the London branch. Still, even that did not prevent his shewing his appreciation for the manner in which the members of the Northern branch staff discharged their duties. Mr. Fewtrell himself was an old Northern branch man, and in going to the south, he had by introducing Northern branch methods, substantially improved the London branch. There was no doubt about it that the Northern branch men did their work very well, and in times of great depression times such as they had recently gone through—that was a source of great consolation to those at head offices. It gave him great pleasure to ask the visitors to drink to the healths of the members of the Northern branch staff.

The response to the toast rested with Messrs. L. B. Heath (Liverpool), Mr. J. Green (Durham), and Mr. H. A. Rasmussen (representing the office staff). Mr. Heath said it was very pleasing for them to hear the good words which had dropped from the lips of their general manager, and they were also delighted to know that, in spite of the severe competition which they had had to encounter during the past twelve months—competition as severe as any they had met with in previous years—Homelight was still holding its own, and their sales in Liverpool were up to the level of those of former years. That had been accomplished by the members of the outside staff, not without a great deal of hard work, and it was gratifying to find that it was appreciated at headquarters. The speaker then proceeded to pay a tribute to the drivers, without whose assistance it would be impossible to get through so much work, and he concluded by expressing the thanks of all the outside men to their manager—Mr. Cartali—and Mr. Chapman, who had done all they conld, not only to further the interests of the company, but to create a genuine feeling of friendship among all the members of the staff.

Mr. Green, in also responding, expressed the hope that prices would soon return to a remunerative level. It was very disheartening for the staff when they had not only to face very severe competition, but when they knew that the prices at which they were selling oil were unprofitable to their company.

"The Northern Branch Agents" formed the title of the next toast, which was submitted by Mr. H. Carwardine, and responded to by Alderman N. Ramsden and Mr. W. C. Sneath, while that of "The Visitors" was proposed by Mr. Chapman, and responded to by Messrs. R. E. Fewtrell, A. Joynson, and A. Lidgitt.

Mr. Fewtrell expressed the pleasure it gave the visitors to be present at that evening's festivities. They had thoroughly enjoyed themselves, and appreciated to the full the generosity of their hosts.

Mr. A. Joynson, in replying, said that the Manchester Ship Canal was at all times pleased to do what it could to promote the growth of Manchester's oil trade, and the fact that last year there had been imported into the city no less than 40,000,000 gallons of petroleum products was in itself sufficient evidence of the fact that the Manchester Ship Canal fostered and promoted the trade in every way it possibly could.

Mr. A. Lidgitt, in also replying, read the following telegram from Dr. Dvorkovitz regretting absence from the gathering: "Convey my best wishes to all old comrades at to-night's Homelight festivities. Although physically absent, yet present in spirit amongst you all."

The remaining toast on the list—that of the Chairman—having been duly honoured, on the proposition of Councillor Walker, the musical and vocal programme which had interspersed the toast list, was proceeded with.

The outstanding feature of the entertainment was that, though it was supplied by members of the staff of the Homelight Oil Co., the merit of the various items was of a very high order, encores being numerous. Perhaps one of the most successful contributors was Mr. G. Cartali, jun., who delighted with "Take a pair of sparkling eyes" and "Be near me," rendering as a well-deserved encore "Thora." Mr. Cartali has a finely cultured voice of considerable volume, and throughout it shewed unmistakable signs of careful training. Mr. C. S. Holiday, too, was very successful with his "Bois epais" and the Judge's song from "Trial by Jury," while Mr. F. J. Baylis' rendering of "I'll sing thee songs of Araby" and "Mary" was greatly applauded. Mr. J. Wilson displayed his Yorkshire dialect to advantage in the humorous recitation "A Yorkshireman's bargain," and his "A'folks it's a darling" was little less successful.

It was almost midnight when the National Anthem brought to a close a most pleasant evening, expressions of regret being frequently heard that such convivial events do not come more frequently to lighten the humdrum monotony of the oil traveller's daily life.

LATEST INFORMATION FROM TCHELEKEN.

According to latest reports from Tcheleken, the petroleum industry is passing through a period of exceptional activity, and now every claim on the island has been taken up. The famous spouter on the Kara Kush plot, owned by Mr. Gadjinsky, has renewed its activity, while another spouter has been struck on the land owned by the Moscow Society. At the present time Mr. Gadjinsky is building an ambar to hold between 7,000,000 and 8,000,000 poods of crude oil.

Several boring contractors have recently visited Tcheleken, and have been successful in securing a number of substantial orders. So great is the present activity throughout the island that the Government has decided to establish a permanent post and telegraph office in Tcheleken.

GROSNY PRODUCTION DURING OCTOBER.

The production of crude oil in the Grosny fields during October amounted to 5,104,300 poods, which came from 182 wells. At the end of the month there was considerable activity in drilling, no less than 62 wells going down, while during the month almost 8,000 feet had been bored.

The production of the leading firms during the month was as under, the figures being given in poods (62 to the ton):—

Akhverdoff	1,963,500
Spies Co.	1,478,600
Maximoff's Trustees	408,000
Kasbeck Syndicate	388 800
Anglo-Russian Maximoff Co.	341,000
Russian Standard	201,800
North Caucasian Petroleum Co.	116,550
Tcheleken-Daghestan Co.	97,800
Caspian Black Sea Co.	38,460
McGarvey	37,000
St. Petersburg Society	25,200

During the month the greatest production from spouters was obtained by the Spies Petroleum Co., Ltd., the total for this company being 110,400 poods. The Kasbeck Syndicate also received a large quantity of production from their spouter, the quantity in this case being put at 94,000 poods. The Akhverdoff Co. had a spouting production during the month of 73,000 poods, and the only other company to have a spouter was the Tcheleken-Daghestan Co., whose total from a fountain was 35,000 poods.

THE PRODUCTION OF GALICIA IN 1909.

The production of crude oil in the Galician fields during the past year is placed at 2,150,000 tons—a record figure. Of this total, 1,740,000 tons were produced at Tustanowice, and 236,467 tons at Boryslaw. The production for the past three years has been as under:—

	1909. Tons.	1908. Tons	1907. Tons.
Tustanowice	1,740,000	1,318,710	1,011,590
Boryslaw	236,467	266,910	
Other Fields	173.533	168,382	164,384
Total (in tons)	2,150,000	1,754,002	1,175,974

BAKU PRODUCTION DURING DECEMBER

The total production of crude oil at the Baku fields during December amounted to 41,097,000 poods. The production of the leading firms during the month was as under:—

	Poods.
Nobel Bros.	5,200,000
Caspian and Black Sea Society	3,500,000
Mantascheff and Co.	2,400,000
Caspian Society	2,100,000
Russian Society Neft	1,100,000
Baku Naptha Society	1,900,000
Mirzoeff Bros.	1,500,000
Zoubaloff	1,500,000
Pitoeff and Co.	1,100,000
Aramazd Co.	1,000,000
Moscow-Caucasian Co.	800,000
Bibi-Eybat Petroleum Co., Ltd.	800,000
Nagieff	660,000
A. S. Melikoff and Co.	600,000
Baku Russian Petroleum Co., Ltd.	600,000
Russian Petroleum and Liquid Fuel Co., Ltd.	600,000
European Petroleum Co., Ltd.	500,000
T. M. Schibaieff Co.	500,000

ROUMANIAN PETROLEUM PRODUCTION DURING DECEMBER.

The crude oil production of the Roumanian fields during December was 118,000 tons. The production of the principal firms was as under:—

	Tons.
Steaua Romana	40,764
Regatul Roman	21,426
Concordia	8,008
Romano-American	9,879
Astra	10,335
Trajan	2,983
International	3,172
Colombia	2,280
Aquila Franco-Romana	1,502
Alpha	1,302
Nafta	1,800
Seceleanu Bros.	2,064
Romano-Belgiana	1,316
I. Koster	4,752

The details of the crude oil production during 1909 will be found on page 62 of this issue.

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NOTES FROM THE OIL FIELDS.

RUSSIAN.

The European Petroleum Company.—This company has recently received the sanction of the Russian Government to purchase plot No. 93 at Zabrat from a Mr. J. Wishaw.

A Surakhany Fountain.—A prolific spouter has recently been struck on the property of Benkendorff and Co. at Surakhany, and has yielded, according to the latest information, 200,000 poods daily for several days.

Activity at Maikop.—So great is the activity in the Maikop region in respect to the applications for final claims of petroliferous plots, that the Mining Department have found it impossible to deal with all the applications. During December no less than 811 petitions had to be temporarily shelved.

Baku Production.—As will be seen from another page, the production of the Baku fields during December was 41,097,000 poods of crude oil. Of this quantity 30,668,330 poods were produced from the districts of Balakhany, Ramany and Saboontchi, and 10,429,253 poods from Bebe-Aibat. The spouter production at Bebe-Aibat for the month amounted to 653,000 poods.

Granting of Final Claims at Maikop.—In Suvorvsk Tsherkesk, in the Maikop region, the Mining Department has granted leases of 24 years' duration to various parties for fourteen claims of an area of ten dessatines each; in Schervansk a claim has been granted to the Baku Black Sea Co. for one plot of ten dessatines, and in Starogitarovsk six claims have been granted.

Maikop Producers Organise.—A movement is now on foot among the petroleum producing firms in the new Maikop fields to organise themselves into an association something upon the lines of the Baku Producers' Association, and the Government has already been approached to sanction the formation of the association. The needs of the locality will be satisfied by the imposition of a tax upon the crude oil produced.

Novorossisk's Trade.—The oil trade of Novorossisk has considerably brightened of late. The figures now available for the ten months of last year shew that the respective quantities dealt with were very largely in excess of those for the corresponding period of 1908. There were dispatched for the interior for the ten months last year 2,670,000 poods of petroleum products, as compared with 2,110,000 poods for January-October, 1908. The exports to foreign countries were 4,140,000 poods, or approximately 2,000,000 poods in advance of the figures for the ten months of 1908.

Batoum Export Trade in 1909.—We have received a few preliminary figures relating to Batoum's export trade for the past year. From these it appears that the total quantity of illuminating oil exported during the twelve months to Europe was 20,634,000 poods, or an increase of about 4,000,000 poods, over the figures of 1908, while to the East and Far East 3,020,000 poods were shipped—about one-third the quantity of 1908. The exports of residuals to Europe for the year amounted to 4,796,000 poods or over double the quantity of 1908. The other petroleum products exported to Europe during the year—mostly lubricating oil—reached 10,000,000 poods.

AMERICAN.

Port Arthur Shipments.—The shipment of both crude and refined oils from Port Arthur during December amounted to 775,000 barrels.

New Company.—The latest registration in America is that of the Calcasieu and Cameron Oil Co., which is to prospect for oil at Lake Charles, Louisiana.

Mid-Continent Stocks.—It is estimated that at the end of the past year the stocks of Mid-Continent oil above ground were just over 56,000,000 barrels.

To Manufacture Lubricating Oil.—The Indian Refining Co., which owns a refinery at Lawrenceville, Ill., proposes to erect a plant for manufacturing lubricating oil.

Illinois Oil Runs and Deliveries.—The total runs of crude oil from the Illinois fields during 1909 amounted to 27,795,000 barrels and the deliveries for the same period were only 10,600,000 barrels.

Californian Production in December.—The production of the Californian fields during December amounted to the record figure of 5,300,000 barrels, this being obtained from about 4,000 producing wells.

Californian Oil Dividends.—The dividends paid by Californian oil companies in November listed on the San Francisco Stock Exchange amounted to $627,910. The total dividends paid to date amount to no less than $26,986,693.

Another Pipe Line to the Gulf.—At a recent meeting of the Uncle Sam Oil Co. it was stated that a proposal was on foot for the laying of a pipe line from Tulsa, Okla., to Houston or Galveston. It is said to be the intention of the company to also build a large refinery.

Property Transfer.—There has recently been completed an important transfer of producing oil properties in the Ohio fields. The Ohio Oil Co. has purchased the interests of the Lee Oil Co., the Warner Oil Co. and those of Messrs. Nostwick and Co., all of which are situated in the Steubenville field. The properties have 23 producing oil wells upon them.

The Directors of the Standard.—At the annual meeting of the Standard Oil Co, held recently at Bayonne, the following gentlemen were elected as directors of the company:—Messrs. J. D. Rockefeller, William Rockefeller H. M. Flagler, John D. Archbold, C. M. Platt, C. W. Harkness, E T. Bedford, Walter Jennings, James A. Moffett, O. H. Payne, A. C. Bedford, H. C. Folger, H. M. Tilford and Walter C. Teagle.

ROUMANIAN.

Increasing Production in Moreni.—We learn that the production of the Moreni district continues to be very good, the daily output being somewhere in the neighbourhood of 1,500 tons. Well No. 6, owned by the Regatul Roman recently had several eruptions, and is now giving about 500 tons per day.

The Famous Tintea Spouter.—The well of the Steaua Romana, No. 5, at Tintea, which, during seven months last year produced 50,000 tons of oil, valued at about 1,500,000 francs, ceased its eruptions on December 31st. It re-commenced, however, on January 14th, and is now producing 300 tons per day.

The Steaua Romana's Production.—The production of the Steaua Romana is steadily declining. The company's production in October was 42,576 tons; in November it was 42,540 tons, and in December it totalled 40,764 tons. The decrease is accounted for by the declining yield of the company's wells in Tintea.

The Deutsche Petroleum Actiengesellschaft.—This company, which represents the interests of the Deutsche Bank in Roumania has declared a dividend of five per cent. upon its capital of £2,000,000 for the year ended September 30th. The report stated that for the period under review the company's operations had been very satisfactory.

The Projected New Law.—Our excellent contemporary, the *Moniteur du Petrole Roumain*, in its latest issue, reproduces from the last issue of the Review the remarks we made respecting the suggested new Roumanian law. The *Moniteur* adds that the project is capable of modifications so as to conciliate the legitimate interests of national work with the interests of foreign companies.

The "Moniteur du Petrole Roumain."—We extend our hearty congratulations to our contemporary—the *Moniteur du Petrole Roumain*—upon the celebration of the tenth anniversary of its publication. When our own journal was first published, now eleven years ago, we commented upon the difficulty which we found in obtaining information relative to the progress in the various Continental oil fields, and when a year later our ably conducted contempory appeared, edited by Dr Mancas, we immediately recognised the great mission it would fulfil in disseminating information of the Roumanian petroleum industry. And from that day to this, the *Moniteur* has increased both in importance and interest.

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Servian	6,700	Terek	5,200	Rock Light	4,100
Carpathian	6.700	Balakani	5,200	Lux	2,900
Roumanian	6,700	Oriflamme	5,200		

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Selling and Chartering Oil Tank Steamers.

LATEST QUOTATIONS OF PETROLEUM SHARES.

ENGLISH COMPANIES.

This list is restricted to companies who have paid dividends or who are producers.

Company.	Capital Paid Up.	Value of Shares.	Latest Prices.
Assam Oil	£310,000	£1	13/0-14/0
Bibi-Eybat Petroleum Co. ..	£380,000	£1	4/0-5/0
Californian Oilfields	£400,000	£1	$5\frac{5}{16}$-$5\frac{7}{16}$
Commonwealth Oil Co. ..	£500,000 Pref.	£1	$\frac{5}{8}$-$\frac{11}{16}$
,, ,, ..	£225,000 Def.	£1	$\frac{5}{8}$-$\frac{11}{16}$
Lobitos Oilfields, Ltd. (£1) ..	£360,000	£1	27/0-28/0
Pacific Oilfields, Ltd. (£1) ..	£200,000	£1	22/6-23/6
Russian Pet. & Liquid Fuel ..	£500,000 6½% Pref.	£1	2/0-3/0
,, ,, ...	£600,000 Ord.	£1	2/0-3/0
Schibaieff Petroleum ..	£575,000 6% Pref.	£5	5/0-7/0
,, ,, ...	£575,000 Ord.	£1	0/3-0/9
Shell Transport & Trading ..	£2,300,000	£1	66/0-67/0
,, ,, ,, ..	£1,000,000 Pref.	£10	11-11¼
Spies Petroleum Company ..	£465,000	10s.	19/3-19/9

RUSSIAN COMPANIES.

Company.	Nom. Value in Roubles	Latest Quotations. Lowest Roubles.	Highest Roubles.
Baku Naphtha Co.	100	315	316
,, ,, ,, (issue of 1908) fully pd.	100	312	320
Balakhany Naphtha Co.	250	—	—
Caspian Society	1,000	4,025	4,075
Mazout Co.	250	—	—
Melikoff, A. C.	250	—	—
Mirzoeff Bros.	250	—	—
Naftalan Co.	250	—	—
Naphtha Co. "Kavkas"	250	—	50
Naphtha Trading Co., A. I. Mantacheff & Co.	250	127	129
Neft Co.	250	—	75
Nobel Bros.	5,000	11,150	11,250
,, ,, ...	250	—	514
Rops and Co. V...	250	315	315
Russian Naphtha Co.	250	—	—
Society Mazout	250	—	400
Ter-Akopoff Co.	250	—	—
Tumaieff & Co., J. G.	250	—	—
Volga-Caspian Naphtha and Trading Co	250	—	—
,, ,, ,, (Second Issue)	250	—	—

SCOTCH COMPANIES

Supplied by Messrs. Maclean and Henderson, Stirling.

Company.	Capital Paid Up.	Value of Share.	Latest Prices.
Anglo-Persian Oil Co., Ltd., 6% Part Pref. (5s paid)	£150,000	£1	5s. 0d.
Do. 5% Deb. Stock	£600,000	£100	£95 0s. 0d.
Broxburn Oil Co., Ltd., Ord. 17/- pd	£235,000	£1	£2 0s. 3d.
Do. 6% Cum. Pref. ..	£100,000	£10	£12 3s. 9d.
Burmah Oil, Ord.	£1,100,000	£1	£4 9s. 6d.
Do. Pref.	£250,000	£1	£1 7s. 0d.
Dalmeny Oil Co., Ord. (7 paid) ..	£37,800	£8 10s	£5 0s. 0d.
Do. 5% Pref ..	£18,900	£7	£4 13s. 0d.
Oakbank Oil Co., Ltd., Ord.	£170,000	£1	£1 14s. 0d.
Do. Pref. (£1 paid)	£100,000	£1	£1 4s. 3d.
Pumpherston Min. Oil Co., Ld., Ord. (17s. paid)	£110,500	17s.	£8 16s. 3d.
Do. 6% Cum. Pref.	£100,000	£10	£13 0s. 0d.
Tarbrax Oil Co., Ltd. Ord. (£1 pd.)	£65,000	£1	£2 7s. 3d.
Do. 6% Cum. Pref.	£40,000	£1	£1 4s 6d.
Young's Paraffin Co., Ltd., Ord. ..	£452,808	£4	£3 5s. 9d.
Do. "B" Deb...	£150,000	£100	£165 5s.

DUTCH COMPANIES.

Company.			Latest Quotations (per cent.)
Dordtsche Petroleum Industrie My.		Aand.	174⅛
,, ,, ,, ..	Pref.	,,	193
Int. Roum. Petroleum Maatschappij		,,	29
Royal Dutch Petroleum Co.		,,	441¾
Mœara Enim Petroleum Maatschappij ..		,,	200
Oklahoma Petroleum Co.	Pref.	,,	129⅞
,, ,, ,, ...	Ord.	,,	45⅞
Perlak Petroleum Maatschappij		,,	144
Sumatra Palembang Petroleum Maatschappij		,,	165
Zuid Perlak Petroleum Maatschappij ..	Pref.	,,	186¼
Union Petroleum Co.		,,	88½
Bibi-Eybat Petroleum Maatschappij		,,	23
Russian Petroleum and Liquid Fuel Co. ..		,,	32
,, ,, ,,	Pref.	,,	7⅛
,, ,, ,,	(6% Debs.)	,,	7½
Schibaieff Petroleum Co. (Ord.)		,,	12½
,, ,, ...	Pref.	,,	14
Shell Transport and Trading Co. ..	Ord.	,,	341
Tulsa Petroleum Co.		,,	92¼

THE INDIAN PETROLEUM MARKET.

(*Crowded out of page* 81.)

Bombay, Jan. 8th.

The petroleum market is strong. The following are the current prices of the Standard Oil Co. of New York:

		Rs.	a.	p.
Snowflake Brand, 150 deg., American	(per case)	6	4	2
White Rose, 150 deg. ,,	,,	6	4	2
Chester Brand, 76 deg. Abel	,,	4	12	2
Devoe's Brilliant	,,	4	12	2
Monkey Brand, 76 deg. Abel	,,	4	6	2
Elephant Brand, 125 deg. (bulk in tins)	(per 2 tins)	3	15	0
Elephant Brand, 125 deg. (bulk without tins) (per 8 Imperial gallons)		3	5	0

◆

PROPOSED PETROLEUM MUSEUM AT ST. PETERSBURG.

In order to commemorate the long association of Messrs. Nobel Bros. with the petroleum industry of Russia, we understand that a fund of £50,000 has been created for the purpose of establishing a petroleum museum and laboratory at the Imperial Technological Institute, St. Petersburg. In order that a comprehensive collection of samples of crude oils and petroleum products, as well as apparatus used in boring, distilling, refining and transporting branches of the industry may be secured, the assistant professor of the Institute—Mr. L. Fokin—is at present touring Europe, and at the moment resident in London. We shall be very pleased if any of our readers, who take an interest in the subject, will bring themselves in touch with Mr. Fokin, and address him at the Review Offices, 45, St. Mary Axe, E.C.

PRODUCTION OF ENGLISH COMPANIES IN RUSSIA.

Baku Russian Petroleum Co., Ltd.—No details of this company's production are now forthcoming.

Russian Petroleum and Liquid Fuel Co., Ltd.—The production for the week ended January 15th was 133,000 poods, or 2,114 tons; and for the week ended 22nd January was 129,000 poods, or 2,080 tons.

Spies Petroleum Co., Ltd.—The production for the week ended 16th January was 312,805 poods, or about 5,045 tons. The total production for year to January 13th was 15,023,720 poods, or about 242,318 tons. The total production for the corresponding period last year was 11,762,555 poods, or about 189,718 tons. The production for the week ended January 23rd was 312,480 poods, or about 5,040 tons. The total production for the year to 23rd January was 440,310 poods, or about 7,102 tons. The total production for the corresponding period last year was 219,720 poods, or about 3,544 tons.

The European Petroleum Co., Ltd.—The production for the week ended January 16th was 104,847 poods, or 1,690 tons; and for the week ended 23rd January was 103,347 poods, or 1,666 tons.

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" 6 " " 6 " "
" 12 " " 7 " "

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FOR any information upon the Future of Petroleum and the Development of our Colonial Oilfields, all those interested in this most important subject should write Geo. Macdonald, 560/1, Salisbury House, London, E.C. Full particulars of petroleum companies' quotations of shares to be had on application.

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THE
PETROLEUM REVIEW,
45, St. Mary Axe, London, E.C.
American Office: 150, Nassau Street, New York.

Saturday, January 29, 1910.

THE RELATION OF LIQUID FUEL TO COAL.

WITH the continued enormous development of the liquid fuel industry in the United States, one can find an interesting subject for thoughtful consideration in the question of the relation of liquid fuel to coal.

Time was when the United States petroleum industry had little or no association with that of coal mining, inasmuch as the importance of a liquid fuel proposition in America had not then become to be recognised. Indeed, until recent years such a question was out of discussion altogether. The few oil fields in the States were producing a high-grade oil which was so rich in its constituting elements as to be of far greater value than as a crude fuel raiser. We had the Pennsylvanian fields pouring forth their flood of high-grade oil into the various well-equipped refineries of the Standard Oil Co. situated at seaboard. From this rich crude the multifarious products and bye-products of petroleum were extracted, and then, under most economical conditions and perfect organisation, finding their way upon the markets of the world, they realised individually prices which put the question of the utilisation of liquid fuel quite without the range of possibility.

But within recent years, matters associated with the production of petroleum in the United States have undergone a complete and very drastic change. The search for petroleum has been unabatedly continued, but the resulting yield of crude oil has unearthed a product far less rich in its refining capabilities, yet admirably suited as a liquid fuel. There are many fields in the United States to which this classification of "heavy oil districts" may be applied. For instance, there is California, Texas, Louisiana, and a few other territories, whose output has tended in a great measure to bring liquid fuel and coal into open competition one with another. Of course, in the main this does not apply, but there are several industries in America, as also in other countries, whose utilisation of liquid fuel spells great economy, and this is especially applicable to those industrial centres which are within easy reach of the oil fields. As a matter-of-fact, liquid fuel, even at much greater cost than coal, is far preferred in those industries where a tremendous heat is necessitated, but in those cases where industrial works are upon the fringe of oil fields, it is no difficult matter for liquid fuel to compete with coal even on the general basis of a power raiser.

It is placed upon record that numerous manufacturing concerns in the United States have wholly gone over to liquid fuel, whereas others recognise its value even if it has to be procured at values greater than those of coal. Then it is also common knowledge that to-day quite a large proportion of the American railroads utilise liquid fuel in preference to coal, while in one or two cases, the railroad companies themselves have strongly entered the oil producing business, if only to partially satisfy their own needs for their locomotives.

In order to arrive at the relation of liquid fuel and coal in the United States, it is first neceesary to consider the extent of the coal regions, which, for the sake of convenience, can be divided into two divisions——anthracite and bituminous. The areas in which the anthracite coal is produced are confined almost exclusively to the eastern part of Pennsylvania, a region covering about 480 square miles. On the other hand, the bituminous coal fields are scattered over wide areas of the States, and altogether include over 330,000 square miles.

In order to appreciate the production of these two coals and also the production of petroleum we have compiled the following table from the official records of the United States Geological Survey at Washington, and in it we have also included the value of natural gas produced, since this, too, enters into competition with coal to some slight extent, as a power raiser. The figures of production for the last eight years (excluding 1909, which details are not yet available) are as under:—

	1901.	1902.	1903.	1904.
Bituminous Coal (tons)	225,828,149	260,216,844	282,749,348	278,659,689
Pennsylvania Anthrac'e(tns.)	60,242,560	36,940,710	66,613,454	65,318,490
Natural Gas (value in $)	27,066,077	30,867,863	35,807,860	38,496,760
Petroleum (bls.)	69,389,194	88,766,916	94,694,050	101,175,455

	1905.	1906.	1907.	1908.
Bituminous Coal (tons)	315,062,785	342,874,867	394,759,112	332,573,944
Pennsylvania Anthrac'e(tns.)	69,399,152	63,645,010	76,432,421	74,347,102
Natural Gas (value in $)	41,562,855	46,873,932	54,222,399	54,640,374
Petroleum(bls)	134,717,580	126,493,936	166,095,335	179,572,479

An analysis of the above tables clearly sums up the situation, and the prospect for the development of an extensive natural gas and liquid fuel industry in America. So far, the extended use of coal appears to have been concurrent during recent years with that of liquid fuel, but it is a well known fact that liquid fuel has advanced in far greater proportion than that of coal. It is stated upon good authority that fully one half of the natural gas in America is utilised for commercial purposes, as opposed to domestic uses, while as to petroleum, we know that of recent years considerably more than one half the production is of a fuel description. Therefore, it can safely be said that liquid fuel has within the past eight years made great inroads upon the consumption of coal in the various industries in the States.

It must be admitted that to-day prices of liquid fuel in many parts of the United States—and especially in California—are value for value ahead of those of coal, and therefore it says much for the claims of liquid fuel that its progress has been, and still is, so considerably upon the up grade.

This subject, we admit, is so complex in regard to the relation between the two fuel factors in the various oil-producing countries that we are encouraged to pursue it further, and so in the near future we hope to dwell upon the relation of coal and liquid in the more prominent oil-producing countries in the world, for by so doing much interesting information will be at the disposal of our readers all the world over.

THE TIN PLATE MARKET.

Messrs. Norton, Owen & Co., of 4, Bishopsgate Street Within, London, E.C., report under date January 28th, 1910, as follows:—

The demand continues good, and many of the works are fully booked for some months ahead. Prices have further advanced, and oil sizes are firm at the following rates:—

IC	18¾ × 14	124 sheets	110 lbs.	13/6 to 13/7½	per box
IC	19¼ × 14	120 ,,	110 ,,	13/6 to 13/7½	,,
IC	20 × 10	225 ,,	156 ,,	18/9 to 18/10½	,,

F.o.b. Wales. Tin lining and iron hooping extra.

EXHIBITION OF INTERNAL COMBUSTION ENGINES AT ST. PETERSBURG.

An international exhibition of internal combustion engines is about to be held at St. Petersburg, at the initiation of the Imperial Technical Society. Full details as to space, prices, etc., can be obtained upon application to Dr. Dvorkovitz at the offices of the Review.

A TREATISE UPON PETROLEUM MINING.

Just as we go to press we have received an advance copy of a most valuable publication upon "Petroleum Mining" which is about to be be issued. It is published by the well-known firm of Messrs. Crosby Lockwood and Son, London, and is from the pen of Mr. A. Beeby Thompson, the author of "The Oil Fields of Russia"—a book which is very popular throughout oil circles. In our next issue we hope to dwell at length upon this new treatise, which strikes quite an unbeaten track.

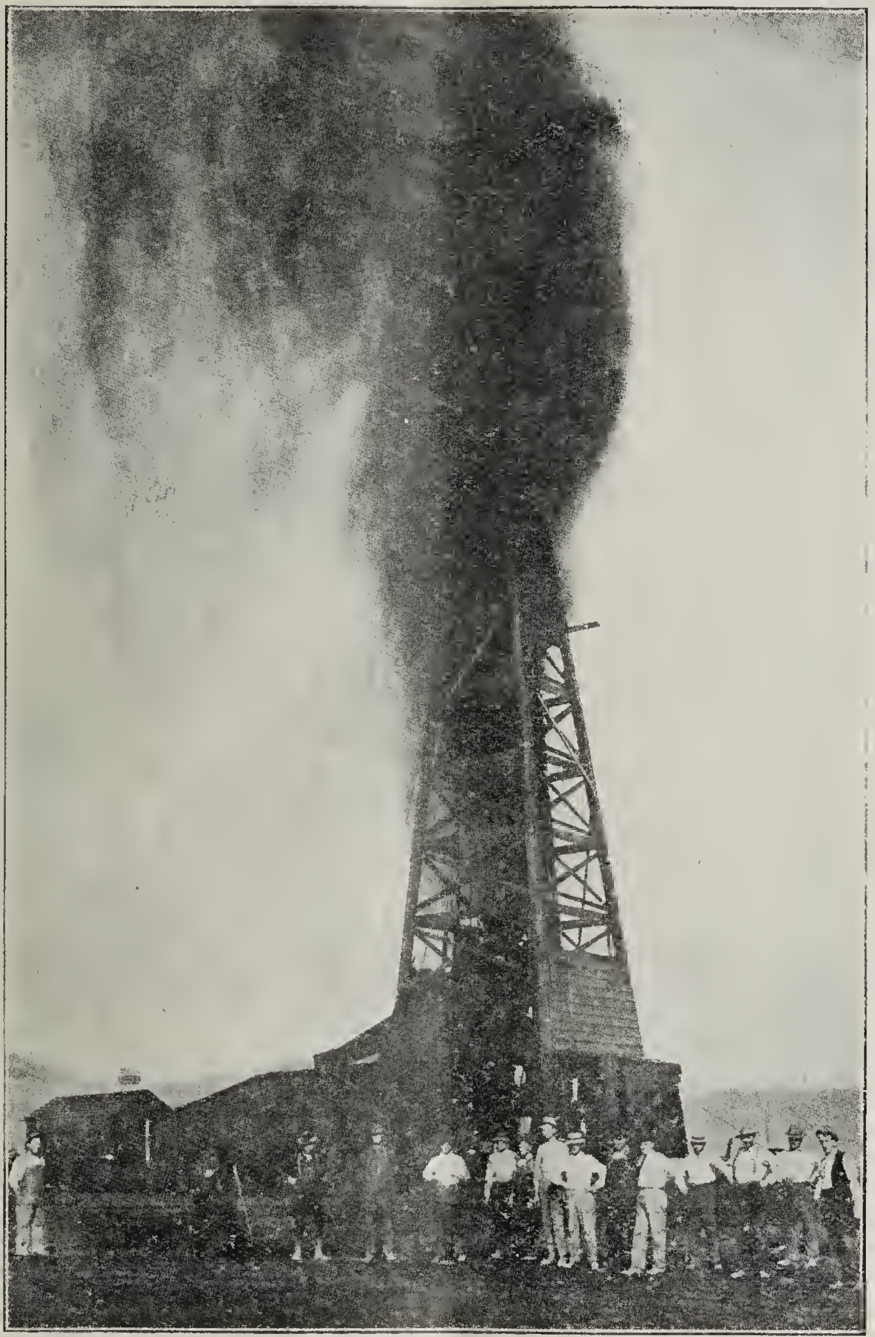
PETROLEUM IMPORTS INTO YOKOHAMA DURING NOVEMBER.

The total imports of petroleum products into Yokohama during November amounted to 1,359,485 gallons, and were valued at 281,996 yen. The total imports for the eleven months of petroleum products reached 18,753,884 gallons, of a value of 3,504,040 yen.

The American Petroleum Industry during 1909.

A BRIEF ACCOUNT OF DEVELOPMENTS.

The outstanding feature of the American petroleum industry during 1909 is the fact that a slight decrease has to be recorded for the twelve months in the total crude oil production. For 1908 this was placed at 180,000,000 barrels, and for the past twelve months it may be taken as being 176,000,000 barrels. California leads all States in the production, and for the year she produced almost 60,000,000 barrels, or 25 per cent. more than her record for 1908. The past year's decrease is accounted for by the decline of the production of the Gulf Coastal fields, Illinois and the Mid-Continental territories, these decreases being sufficient not only to wipe out the Californian increase, but leave a deficit for the year of about 4,000,000 barrels.



THE SILVER TIP GUSHER: THE OUTSTANDING FEATURE OF 1909 DEVELOPMENTS IN CALIFORNIA.

Before dealing in detail with the progress recorded during the past year, it is well at this juncture to shew how remarkable has been the development of America's petroleum resources for the past decade. This wonderful progress will be best seen by the following table:—

	Barrels of 42 gallons.
1899	57,000,000
1900	62,000,000
1901	69,000,000
1902	88,000,000
1903	100,000,000
1904	117,000,000
1905	134,000,000
1906	136,000,000
1907	157,000,000
1908	180,000,000
1909	176,000,000

The total production may be divided up between the various fields as under, the output of the fields for 1908 being given alongside for the purposes of comparison:—

Field.	1909 Barrels.	1908. Barrels.
California	58,000,000	45,000,000
Mid-Continent (Kansas and Oklahoma)	45,500,000	50,000,000
Illinois	28,000,000	37,000,000
Appalachian Fields (Pennsylvania, West Virginia and Eastern Ohio)	25,500,000	24,000,000
Texas	9,500,000	10,000,000
Louisiana	3,000,000	6,000,000
Lima (Indiana and Ohio, excluding the Eastern portion)	6,000,000	7,000,000
Other Fields	500,000	1,000,000
Total ..	176,000,000	180,000,000

Taking the more important fields in their natural order, we must first deal with California, whose production is the greatest on record, the State having risen, for the first time in history, to the position of the greatest producing country in America. Time was when upon all hands there was much talk of over-production in California, when the total output of the State stood at about one-half its present quantity. But matters have since changed, and in a hundred and one directions, Californian oil to-day enjoys advantages which a year or two ago were unthought of. As liquid fuel, immense quantities find profitable employment both on land and sea, whilst the bringing up-to-date of the transportation facilities has enabled the Californian oil industry to make rapid and very substantial progress.

Twelve months ago the REVIEW prophesied that the total production of crude oil in California during 1909 would not be far short of 60,000,000 barrels. As shewing how close we were to the actual results of activity in the oil fields, the figures of 58,000,000 barrels for 1909 speak for themselves.

Toward the end of the year matters took a distinct turn for the better, and for October, November and December, the production each month exceeded the 5,000,000 barrel mark. Presuming the present activity continues during the present year, and even continue to increase in proportion to past progress, then a total yield for California during 1910 will not be far short of 70,000,000 barrels.

A few details concerning the Californian fields will here be full of interest. The present production is obtained from about 4,400 wells, over 30 per cent. of which producing wells are in the Kern river field. The Coalinga field, however, is the largest producing district in California although to-day there are only 600 producing oil wells within its limits. Its daily production is 46,000 barrels while that of the Kern River field with three times as many producing wells, is under 40,000 barrels daily.

In regard to drilling activity, the Coalinga field leads all others, 160 wells at present going down, while in the Sunset-Midway field 115 wells are now being drilled. But in spite of the great activity which prevails throughout the State and the constant increase in the daily production of crude oil, the fact remains that the daily shipments to-day exceed the production, and stocks above ground are being drawn upon to a great extent. The present shortage is estimated at 1,500 barrels daily—so great is the demand for Californian oil both at home and abroad.

With regard to prices, these have considerably hardened during the year which has just closed, and to-day producers are demanding considerably higher figures than was the case in January, 1909.

One of the outstanding features of the year 1909 was the bringing in of the Silver Tip gusher in the Coalinga field last September. With only the exception of the Hartnell well of the Union Oil Co. which was brought in in the Santa Maria field in 1904, the Silver Tip gusher is undoubtedly the largest well ever drilled in the State, and shews what wonderful richness of territory awaits future operations.

As will be seen from the table upon the preceding page, the Mid-Continent field, which includes Kansas and Oklahoma, was last year responsible for a total production of 45,500,000 barrels, or a slightly less production than during the preceding twelve months. Probably the most interesting development during the year 1909 in these fields was the bringing in of a new pool known as the Hamilton pool. In August the first successful developments in this region resulted in the bringing in of a well which flowed 800 barrels per day, and now is making 600 barrels daily. There was considerable activity in the district as the result of this strike, and five more wells were drilled, each of which turned out to be a good producer, the last to be brought in yielding 1,500 barrels daily, and being self flowing. The wells in this section are the deepest of any in the field, the sand lying uniformly about 2,200 feet down. There is now a great deal of land changing hands in the Hamilton district, and in a few weeks some 50 or 60 new wells will be completed.

Throughout the old Mid-Continental region there was a large amount of drilling done during the twelve months, but nothing in comparison with that of former recent years. No new pipe lines were built during the year for the purpose of more expeditiously transporting the crude product outside the field. The Prairie Oil and Gas Co. purchased regularly 80,000 barrels daily. The Standard Oil Co. are, however, now engaged upon the laying of a trunk line to the Gulf, one branch of which is to start from the Glenn pool and the other from the vicinity of Nowata. This line will pass to the Standard's new refinery near Baton Rouge. It is hoped that this trunk pipe line will afford a much greater demand than at present exists for Mid-Continent oil, and then we may expect an impetus given to crude oil production.

Turning to Illinois, it will be noted that here also the figures for 1909 are behind those of the former year. The reason is to be found in the fact that about the middle of the year the market was over-stocked through continued successful drilling, and prices fell from 68 cents per barrel to just under 60 cents. Therefore, production was curtailed as far as possible, though it may here be mentioned that for the first few months of last year the field's output was even greater than during the corresponding part of 1908. In Illinois the principal development took place in Lawrence county where the deep sands below the coal measures were sought for. So far, however, they have not been worked to the full extent on account of an inactive market, and the increased expenses inseperable from deep drilling in caving formations. Writing in the *Engineering and Mining Journal* upon the subject of petroleum in Illinois, Mr. Raymond S. Blatchley, the assistant geologist of the State Geographical Survey in Illinois, points out that during the year 2,975 new wells were drilled in Illinois, and of this number 526 were dry holes. The initial production of the new wells was the lowest in February, when the average was 23 barrels, but during December the average initial production per well was 56½ barrels. Summing up the situation in Illinois, Mr. Blatchley says: - "The year as a whole has been prosperous from the standpoint of new production, and with adequate means of taking the oil, the outlook for the present year would be excellent. The use of oil as fuel is commanding attention in the Illinois fields, and a new line of demand is being opened up."

The oil fields of New York, Pennsylvania, West Virginia, South-east Ohio and Kentucky produce a high-grade petroleum with a paraffin base. These oil fields are included under the general name, the "Appalachian Oil Field." This oil field, for a number of years, has shewn a steady decrease in production, but owing to the discovery of some large wells in West Virginia during 1909, a slight increase is recorded. The total production of the Appalachian oil field in 1909 was 25,394,200 barrels, as compared with 24,240,000 barrels in 1908, 25,500,000 barrels in 1907, and 27,345,000 barrels in 1906.

At the beginning of 1909 crude petroleum of the Pennsylvania grade sold for $1·78 per barrel. A break in prices came in April, and finally in November the uniform price paid was $1·43 per barrel. The average price during the year was $1·62 per barrel, as compared with $1·78 in 1908 and $1·74 in 1907.

Petroleum developments in Pennsylvania and New York during 1909 have been the repetition of the history of these fields during the previous five years. The production has been maintained only by the yearly drilling of about 4,000 wells, with a daily average production per well of about 2½ barrels. Most of the oil territory in these two States is of the long-lived kind, owing mainly to the density of the sand rock containing the oil.

In the Allegheny county field in New York, writes Mr. H. C. George in the current issue of the *Engineering and Mining Journal*, more than half of the producing wells, which number about 6,000, were drilled 25 years ago. Hundreds of others equally as good were "pulled out" at the time of the big excitements in other fields between the years 1882 and 1892 for the purpose of securing the "junk" for use elsewhere. During the last five years, many of these abandoned wells have been redrilled and placed on a paying basis. During 1909 a test well was drilled in this field to a depth of 3,200 feet. The well was cased to 300 feet. From 975 feet to 2,650 feet the drill encountered black and brown shale. At 2,650 feet the Niagara limestone was reached. From 3,050 feet to 3,115 feet, a salt bed was passed through. From 3,115 feet to 3,200 feet, the bottom of the hole, the drilling was in blue slate.

Drilling operations in Pennsylvania are naturally limited by the scarcity of available territory and the small wells secured. But territory which would have been considered of no value a few years ago is now secured and thoroughly drilled. The decrease in the market price of petroleum during 1909 had a tendency to limit operations and developments in the Pennsylvania and other fields, where only small wells could be hoped for; not so much on account of the decrease itself, but more on account of the feeling of uncertainty that it created. Nearly all of the wells drilled in Pennsylvania during the year were small. A good well was struck last April in the Bradford sand at Smithport, McKean county. Probably the best well drilled in the State during the year was the one completed last October near Bakerstown, Allegheny county. The production during the first 24 hours was 350 barrels.

The Steubenville pool in Jefferson county has been furnishing the largest producers in Ohio. But the limited area of this field will not justify hopes of any great increase in production. Operations were active during 1909 in Fairfield and Perry counties. The wells drilled are not large, but they indicate the existence of considerable undeveloped oil territory. In the earlier part of the year one of the best wells credited to the eastern fields was drilled in Ludlow township, Washington county. It produced in the first 48 hours about 2,500 barrels. In the Woodsfield district, Munroe county, some good producers were found as a result of extended field activity. Neither Jefferson nor Columbiana counties has been very successful in field operations or new production.

West Virginia, during the last few years, has stood first in new production in the Appalachian field. Lincoln county led in active work and increased production during the earlier part of 1909. This was chiefly due to a number of fair producers in the Berea grit formation. Much exploration work was done in Putnam, Kanawha, Boone, Logan and Mingo counties, but with indifferent success.

The best well drilled in August in the Appalachian field was found in the Shinnston pool in Harrison county. At its best it produced about 80 barrels per hour, and it averaged about 1,700 barrels per day at the end of a week. This well furnished about half of the new production credited to West Virginia in August.

Previous to August in 1909, South-east Ohio stood first in new production in the Appalachian field for the year, but at this time West Virginia resumed first place. Last October a well was drilled in the Mannington district in Marion county, West Virginia. It produced 500 barrels during the first 12 hours. Later it was given a shot and the production was increased to 100 barrels per hour.

In November the production of the Shinnston pool in Harrison county had reached 7,000 barrels per day by the drilling of a few very large wells. Early in December this pool furnished the largest gusher with one exception since the days of the big wells of the McDonald field. No accurate gauge could be taken of the production at first, but it was variously estimated from 300 to 500 barrels per hour. When finally controlled, with facilities to handle the oil, the production reached 4,000 barrels during the first 24 hours. The production of the Shinnston pool in December averaged about 10,000 barrels per day.

During the latter part of 1909 the Big Injun district in Roane county was most active in development work. This county has more wells drilled and started than any other in the south-west part of the Appalachian oil field. About the time that operations became more active in Roane county there was a marked decline in Lincoln county. There was considerable development work in Ritchie, Pleasant and Wirt counties during the year. In the "shallow sand" territory in Ritchie county the Grant and Murphy districts produced some good wells The new wells in Wirt and Pleasant counties are mostly small producers.

Developments in Kentucky were not especially promising. Nearly half of the wells drilled during 1909 were dry holes, and there are no strong indications in the State of any great extent of oil territory.

There was a time when all eyes were fixed upon the Gulf Coastal field of Texas and Louisiana, as a very important centre for crude oil production, but the fact that to-day the largest refining plants near the Gulf are mainly fed by the product from other fields, suggests that both Texas and Louisiana do not to-day play that important part in oil field operations they did years ago. Both fields shew a decrease in production for the past year, when the figures are placed alongside those for 1908, while the decrease is even more pronounced if we go back a few years. The old-time popular regions of Spindle Top, Sour Lake, Batson Prairie, to say nothing of Saratoga and Humble, have lost the major portion of their attractiveness, and during last year Sour Lake and Caddo (Louisiana) were the only fields which displayed increased activity. But the great wells of 1904-5 are not encountered to-day, and many have already come to the conclusion that the decline in output must continue. In fact, in some of the fields—notably Spindle Top and Jennings—their proportion of dry holes was almost as great as the number of producing wells brought in. Even the Humble pool, which retained its position as the largest producing locality in Texas last year, considerably declined, and whereas in 1908 the average initial capacity of the wells brought in was over 200 barrels, the average for last year was only 60 barrels.

SITUATION WANTED.

PETROLEUM EXPERT AND CHEMIST of wide experience among the leading refineries throughout the Continent (including responsible position with Messrs. Nobel Bros.), is open to accept position as technical manager of any petroleum enterprise. Highest references given and required. Address:—"Expert," c/o "Review" Offices, 45, St. Mary Axe, London, E.C.

Crude Petroleum as a Reducing Agent for Zinc Ores.

By Messrs. HARRY H. HUGHES and HARRISON HALE.

The process generally in use for zinc reduction is exceedingly cumbersome, slow and far from satisfactory, Comparatively small quantities of the roasted ore are mixed with coke and coal and heated in clay retorts, which must necessarily be of considerable thickness, the zinc distilling over. The time required is about twenty hours and the expense for heat large. In the best of coals there is quite an amount of matter which does not act as a reducing agent. Some of this is not only not helpful to the process but really injurious, as oxygen is furnished which hinders the reduction. These impurities also occupy space in the retort and consume heat the same as ore.

The high percentage of carbon and of hydrogen in crude oil and its resulting reducing power suggests it as a possible reducing agent. Its extreme cheapness makes it all the more desirable. An objection to its use arises at once in the fact that a temperature of at least 1,200° C. is required to practically reduce zinc oxide to metallic zinc, and before such a temperature could be reached in the usual furnace all the oil would be volatilised, leaving an insufficient amount of carbon to carry on the reduction. Evidently, then, if crude oil can be used economically for zinc ore reduction it must be in a continuous process by which the furnace can be heated to a sufficiently high temperature and the mixture of oxide and oil fed into it. It would seem that under such conditions reduction should take place before any quantity of the oil can escape. To test this assumption a series of experiments was carried out in this laboratory.

An ordinary gas pipe, three-quarters inch in diameter, was connected at right angles with a cup from which the mixture of ore and oil could be fed by means of a cock. At first this pipe was placed in a Bunsen combustion furnace, but no reduction occurred, as the necessary temperature could not be reached. It was then passed through a Brown assay furnace, entering through a hole cut in the back, and passing out the door with the end nearer the cup being slightly elevated. The coke fire around this gave ample heat without the use of a blast. The pipe extended some inches from the furnace, acting as a condenser.

Fifty grammes of zinc oxide, mixed with enough oil to make it pass through the cock was the usual charge. The oil required for this was in considerable excess of the amount needed for reduction. So-called "black oil," the crude with kerosene and the lighter oils removed. was used at first, and later the regular crude: either will answer.

After the furnace was heated the charge was run in, An effort was made to pass it in slowly, but with this rough apparatus usually without success as almost the entire charge passed in at once. An evolution of gas from the oil on the heated surface followed. The charge remained in the heated pipe for 20 to 30 minutes, when the pipe was removed and cooled, and the contents examined. Beautiful specimens of zinc were found in the condensing portion of the pipe, and there was an almost complete absence of "blue powder."

Some of the zinc was feathery, as if both the oxide and the oil were in a volatile state when reduction occurred. This reduction in a gaseous condition greatly shortens the time required as the reducing gas is in immediate contact with the oxide to be reduced.

The gas generated by the excess of oil together with the carbon monoxide formed in the reduction was frequently lighted as it passed out of a burner connected with the end of the pipe. It should be possible to use the gases to heat the pipe or other retort containing the charge, largely reducing the fuel expense.

A number of trials were made with uniformly good results. From our experiments we conclude:—

First, that zinc ores can be successfully treated, after roasting, by using crude petroleum as a reducing agent.

Second, that the theoretical advantages from the high reducing power of the oil and from the gaseous state of oxide and reducing agent, hold in a practical tests.

We believe further that a continuous process based on these principles would be much cheaper, more rapid, and more easily controlled than any process now in use. Arrangements have already been made for trying the process on a large scale, using the continuous process furnace.

CLASSIFIED IMPORTS INTO UNITED KINGDOM UP TO JANUARY 24th, 1910.

IN GALLONS.

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Country.	Illuminating.		Lubricating.		Residuals.		Gas Oil. (Solar)		Benzine.		Fuel Oil.		Other Descriptions.		Totals.	
	Since Jan. 10	From Jan. 1.	Since Jan. 10.	From Jan. 1.	Since Jan. 10.	From Jan. 1.	Since Jan. 10.	From Jan. 1.	Since Jan. 10.	From Jan. 1.	Since Jan. 10.	From Jan. 1.	Since Jan. 10	From Jan. 1.	Since Jan. 10.	From Jan. 1.
Austria ...	—	—	5,000	8,000	—	—	—	—	—	—	—	—	—	—	5,000	8,000
Belgium ..	—	—	24,760	31,690	—	—	—	—	—	—	—	—	—	510	24,760	32,200
Canada ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dutch India	—	—	—	—	—	—	—	—	—	2,109,120	—	—	—	—	—	2,109,120
Germany ...	26,270	46,500	46,770	75,420	—	2,000	—	—	—	—	4,640	4,640	2,600	2,600	80,450	131,160
Holland ...	290	290	430	430	—	—	—	—	20,050	356,450	—	—	—	2,520	20,770	359,690
Roumania ...	—	—	—	—	—	—	—	—	—	950,400	—	—	—	—	—	950,400
Russia ...	—	—	4,000	6,000	—	—	—	—	—	—	—	—	240	240	4,240	6,240
U.S.A. ...	2,934,440	2,947,940	2,361,040	3,256,540	7,850	11,850	2,766,520	4,052,650	—	—	680,370	680,370	13,690	25,080	8,764,090	11,001,230
Other Countries	—	—	—	960	—	—	—	—	—	—	—	—	—	1,600	—	2,560
	2,961,000	2,994,550	2,445,000	3,409,040	7,850	13,850	2,766,520	4,052,650	20,050	3,415,970	685,010	685,010	16,930	32,550	8,902,340	14,603,600

THE PETROLEUM INDUSTRY IN TRINIDAD.

LATEST DEVELOPMENTS.

We are indebted to our most interesting contemporary, *The West India Committee Circular*, for the illustrations which are published on this page, and also for several items of news in relation to the development of the petroleum industry on the Island of Trinidad.

The first illustration shews the latest oil tank to be erected in connection with Trinidad's new industry. This has been built at La Brea, and has a capacity for 2,240,000 gallons, or nearly 10,000 tons. It stands in strange contrast to the first oil tank which was constructed some years ago near Trinidad's first oil well, for this only had a capacity of 400 gallons.

The second photograph illustrates the wells Nos. 2 and 3 at Brighton, La Brea, while the third illustration depicts the pumping of the oil into the settling tanks. The whole of the photographs were taken by our friend Mr. Randolph Rust, who has been prominently associated with the petroleum industry in Trinidad from the earliest times in its history.

We learn that at the present time drilling for oil is being continued at Guapo by the Trinidad Petroleum Co. under the directions of Messrs. Thompson and Hunter, whose representative engineer, Mr. R. H. Trench, B.A., is supervising the preparations for a continuance of operations at Guayaguayare by the Trinidad Oil Exploration Co. In order to assure the health of its employés, special bungalows, constructed largely of uralite, have been sent out from England. In order to simplify the operations at Guayaguayare, a light railway has been constructed from the sea to the properties and most modern up-to-date drilling plant has been despatched there.

◆

ILLNESS OF MR. HERBERT OWEN.

Our readers will be pleased to hear that Mr. Herbert Owen, of the well-known firm of Messrs. Norton, Owen and Co., who has been suffering from an attack of double pneumonia is now convalescent, and after a short rest and change of air, expects to return to business shortly. Mr. Owen has a large circle of friends in the oil trade, for, in his capacity as tin plate supplier, he has been closely associated with it from its infancy, and we are sure all will join us in congratulating our mutual friend upon recovery from so serious an illness.

Trinidad's Latest Oil Tank (capacity 2,240,000 gallons).

Nos. 2 and 3 Oil Wells at Brighton, La Brea.

Oil being Pumped into the Settling Tank.

THE OIL WAR IN MEXICO.

THE LATEST BULLETIN BY THE WATERS PIERCE OIL COMPANY.

As readers of the REVIEW will recollect, several bulletins occasionally appear before the public of Mexico with reference to the oil war which is still being waged in the Republic by the Waters Pierce Co. on the one hand and the Pearson interests on the other. The latest bulletin from the first-named company reads as under:—

"The Waters Pierce Oil Co. started the oil business in Mexico from small beginnings. It developed it in a quarter of a century into one of the greatest industries in Mexico.

"We reduced the price of oil all over the Republic. Comparison of prices of thirty, twenty, ten years ago, and down to last year will shew a steady downward course of prices. We have increased the consumption of oil by this reduction in price and by the establishment of improved methods of distribution and handling. The sharp reduction in prices to below cost during the last year due to competition is abnormal and no criterion, as it cannot last beyond the brief time necessary for amateur competitors to grow tired of losing money in a vain attempt to secure some advantage.

"We have created a new industry in Mexico and for Mexico.

"Over 90 per cent. of the employés engaged in this work are Mexicans. We have taught them a new trade, and built refineries in which they can follow it. We believe that these acts constitute as just grounds for our claim to be in essence a Mexican concern as would the assumption of a Mexican name that would simply be a veil to thinly conceal foreign ownership. We do not care to conceal it. We freely admit that as foreigners we find Mexican business opportunities sound and Mexican government fair, and we are glad to identify ourselves with the country, commercially, spend money in building up a business here, and employ Mexicans to carry it on.

"We are a commercial concern: we do not propose to meddle in finance, politics or religion if we can avoid it. For that reason we believe that the best results will be obtained in the long run for ourselves, our Mexican employés and the Mexican customers by our continuing to control an administration which has had for years a successful experience in the oil business and whose own money is at stake. This, we think, is wiser than to seek to give our organisation an appearance of greater local influence by securing the services of gentlemen of great ability and repute in the realms of finance, politics or other influential lines not connected with this business, whose total cash investment in the company might not represent the value of one car load of oil."

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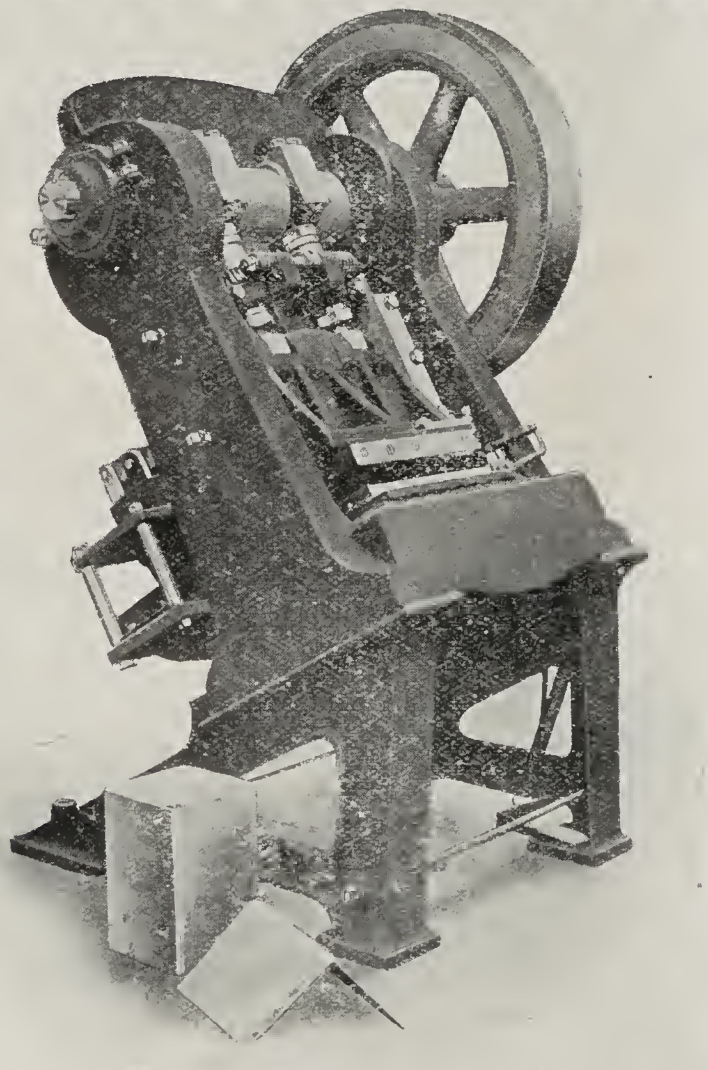

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The Anticlinal and Hydraulic Theories of Oil and Gas Accumulation.

By MALCOLM J. MUNN.

(Concluded from page 46.)

The general result of such movement therefore would be to form a large number of oil and gas pools in all kinds of rocks and under many varying conditions. Those pools of commercial value would be the ones formed in relatively porous beds under high pressure. This pressure, while now sometimes found to be partly hydraulic, was originally mainly capillary. Pressure in pools is maintained by the expansive force exerted by gas, which was either accumulated with the oil or generated subsequent to the formation of the pools. Such gas could not diffuse because of the saturated condition of the surrounding rocks. Pools in which the hydraulic element is active shew more or less water with the oil and gas. Those which were accumulated by capillarity would shew no indication of water, nor would water appear in a well drilled through beds enclosing capillary water. A combination of the hydraulic and capillary elements of pressure in different proportions results in all gradations from rocks shewing considerable quantities of water to those apparently dry, though in fact filled with capillary water. Such areas should not be confounded, however, with those that have not been invaded by moving water and in which the rocks are still unsaturated.

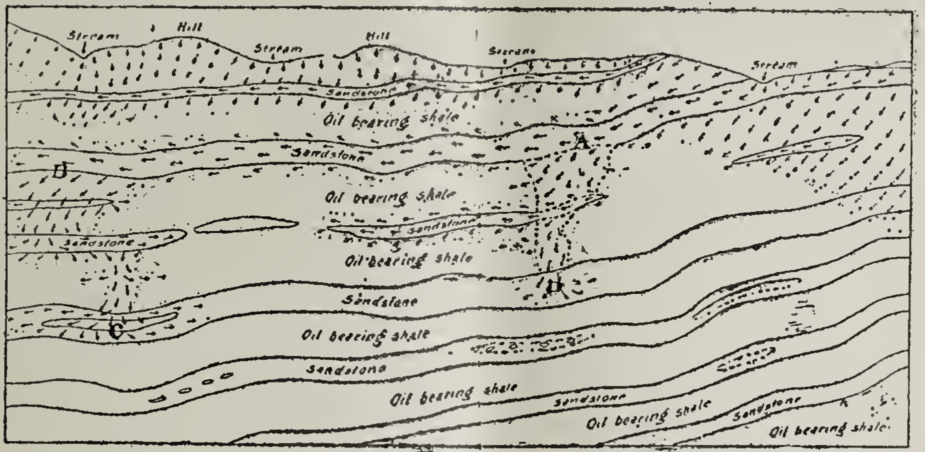

Fig. 77.

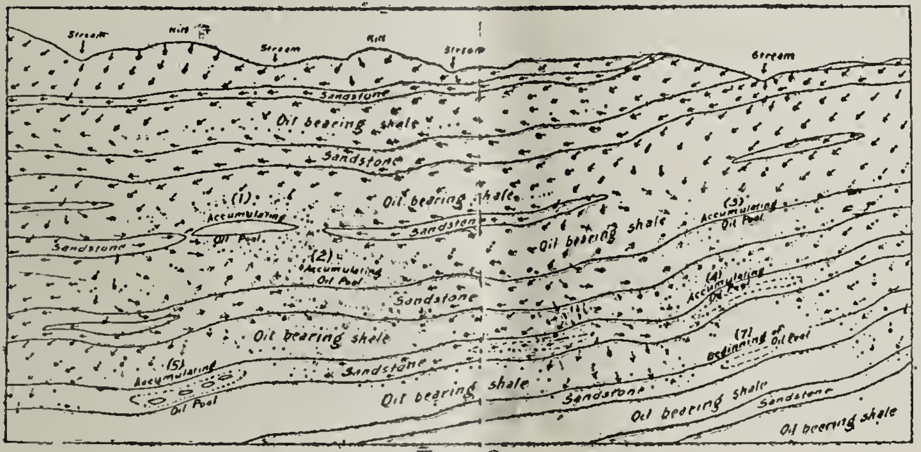

Fig. 78.

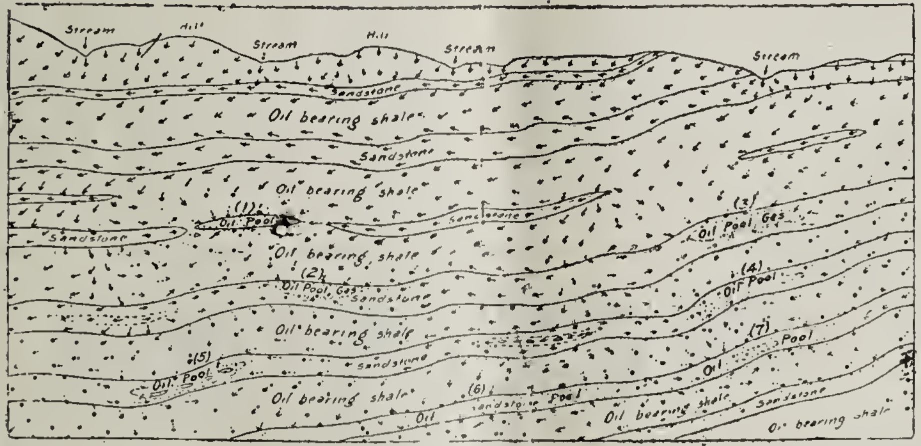

Fig. 79.

Figs. 77, 78 and 79 shew an ideal section through a series of oil and gas bearing shales and sandstones of the Appalachian type, and approximate course taken by an invading body of water. The arrows indicate the supposed direction of movement of the water through the rocks. Solid arrows shew areas under hydraulic pressure. Dotted arrows shew where the movement is supposed to be entirely or largely capillary. Dots shew favourable points for the accumulation of oil and gas.

The principle upon which the hydraulic idea of accumulation is based is illustrated by Figs. 77, 78, and 79, which are intended to shew three stages of an invasion, by surface waters of a series of sandstones and shales containing oil and gas in fields similar to those of the Appalachian region. The first figure shews a sandstone out-cropping at the surface to be the principal source of water. This sandstone is underlain by shale which at certain points, *A* and *B*, is assumed to be more porous and therefore more easily penetrated by water travelling under hydraulic pressure than the denser portions of the shale. Under such conditions the water travelling principally by hydraulic pressure through the sandstone and through the porous portions of the shale might easily reach the points, *C* and *D*, in the lower sandstone before the denser shale at other points had been saturated. From these points the direction of the moving water, as indicated by the arrows, would result ultimately in the collection of bodies of oil and gas from the rocks through which the water passes into areas surrounded by opposing currents of water. As long as this water moves by hydraulic pressure, pools of commercial size will result from the accidental meeting of such currents around pay streaks. In areas where capillary movement predominates, the battle for capillary space between the water and the oil will go on until the water ultimately forces the oil into the more porous portions of the rock where capillary attraction is weakest.

It may be seen that the capillary pressure of water enclosing a given pool may be augmented by hydraulic pressure by subsequent erosion and a greater invasion of water. It is also possible for enormous quantities of oil and gas to have been driven downward through the rocks for relatively great distances before being finally trapped by conflicting currents. When once formed, however, pools remain practically stationary.

The above sketches may be modified to fit the local conditions found in a very large number of pools of much more intricate structure, without in the slightest degree changing the principle upon which they are based. Instead of a common source of water there may have been as easily a number of independent sources of supply, which may be either meteoric water, or water of deposition, or both. Again, each unconformity represents a time when there was a possibility of an invasion of surface water being followed by salt water from the unlimited supply of an encroaching sea.

In all cases the geologic history of an oil or gas pool is intimately associated with the structural changes to which the bed enclosing it has been subjected. The structural position of a pool may therefore be said to depend upon the direction of movement of the invading water with reference to the dip of the rocks. If the course of the water was parallel to the dip of the rocks and the movement by hydraulic pressure, the position of the oil pool will conform fairly closely to structure lines. If the movement with the dip was by capillarity, this conformation to structure would be more modified by the varying porosity of the oil-bearing bed. If the moving water had a direction parallel to the strike, the pools may have no definite structural arrangement.

The salt water so often found in connection with oil and gas may be either the original water of deposition, or it may be surface water which has travelled a sufficient distance through the beds to accumulate salt from the rocks by the solution. In most cases the salt water probably is derived from both sources.

The practical application of the hydraulic theory in the search for new pools of oil and gas, especially in the Appalachian fields, involves an intimate knowledge of the structure, stratigraphy and the general water conditions of the various beds, and all the facts relative to the varying porosity of the beds that may be acquired. With this knowledge a trained geologist familiar with the geologic problems involved in any particular field, should be able to consistently select areas for testing where the possibility of pools having been accumulated is far above the average. The value of such work will of course in all cases be dependent upon the information available and upon the ability of the one who interprets it.

◆

New Oil Wells in Mexico.—The *Mexican Herald* of 4th January states that the Mexican Petroleum Co. has recently brought in three new oil wells in the Hausteca district, and that two more are now being drilled. A pipe line, 110 miles in length, is being laid between the oil fields and Tampico. It is stated that a narrow gauge railway, 130 miles long, is to be built to connect the oil district with the latter town.

MOTORISTS AND PETROLEUM SPIRIT.

We have received an official report of the meeting of the Petroleum Committee at the Home Office on Thursday week, from which we take the following :—

Lord Russell stated that the present regulations, in his opinion, were amply sufficient for the protection of the public in the case of those who store it for use in their private motor-cars. Regulation 7, which requires notice to be given to the local authority in certain cases, was sufficient to prevent accidents. He had kept petroleum spirit in London under it, and had not found the local authority unreasonable. In the case of petroleum spirit kept in the country, a larger quantity than 60 gallons might be allowed if the place of storage was more than, say, 100 yards from a dwelling-house. The real dangers arose, not in the storage of petrol, but in the process of transferring it from the storehouse to the tank of the motor-car, and regulation 13 might be made more specific to meet that danger. It sometimes happened that domestic servants took petrol quite recklessly inside the house for cleaning purposes.

Mr. J. W. Orde, the secretary of the Royal Automobile Club, stated that in his opinion, taken as a whole, the existing regulations appeared to have fulfilled the purpose for which they were promulgated. He would suggest :—(1) That it be obligatory that a sack of sand be kept outside every store containing more than 20 gallons of petroleum spirit. (2) That the local authorities be more definitely instructed as to the carrying out of the regulations with a view of getting greater uniformity. (3) That regulation No. 5 be amended to allow 120 gallons when the store is 150 feet from a dwelling. (4) That regulation No. 9 be more rigorously enforced to prevent leakage. (5) That regulation No. 10 be amended to permit of 40-gallon steel casks being stored. (6) It was a custom for ladies and others to purchase from garages small quantities of petrol for cleaning, for which they brought ordinary bottles. No one should be allowed to sell small quantities unless put up in specially prepared bottles, properly labelled and stoppered. (7) In the case of motor-omnibus companies and motor-cab companies the reservoirs on the vehicles should only be filled by those who had been specially instructed in that kind of work.

Mr. W. Rees Jeffreys, secretary of the Motor Union of Great Britain and Ireland, stated that the union had a membership of 14,000, nearly all private owners of motor-cars. It was on behalf of the private owners of motor-cars that he wished to speak. The Motor Union, while raising no objections to any reasonable regulations governing the transport and storage of petrol having for their object the safety of the public, wished to make a protest against the adoption of such regulations which would—(*a*) raise the price of petrol, or (*b*) render it less easy to obtain, or (*c*) render the private user liable to pains and penalties for breaches of regulations not necessary with ordinary care.

In practice, the motorist carried one or two spare two-gallon tins on his car, or kept two or three spare tins in his motor-house. In urban districts that motor-house often formed part of his dwelling-house, or was a converted stable in a mews. But a very small proportion of motorists so storing their petrol reported the fact to the local authority.

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The American Oil Market.

New York, Week ended Jan. 15th.

Weather and market conditions have exercised a generally restraining influence on field operations during the week, and the completions in the districts east of the Mississippi River fall below those of any week during recent months. Drilling during the balance of the winter will probably be of a perfunctory character, with the exception of a few fields which offer unusually favourable prospects for strikes of consequence. The most attractive district in the fields of the Pennsylvania classification, says the *Oil, Paint and Drug Reporter*, is the Shinnston pool of Harrison county, West Virginia, operations being keenly prosecuted of late with the hopes of developing an extension to the territory where the largest producers were brought in. While the severity of the winter has interfered to a considerable extent with these tests, some of the ventures have been pushed to a stage which seems to condemn the opening of additional producing area. The wells of the gusher type in the formation shew a steady decline, and the total production has fallen to about 8,000 barrels a day, nearly one-half of which is furnished by the three big wells. The thirty-foot formation of Mannington district, Marion county, is commanding wider interest, a late completion coming in at the rate of 10 barrels an hour. An earlier well in the district was credited with 50 barrels a day. A century producer was a feature of development work in Tyler connty. Roane county furnished a well that was considered promising for a 75-barrel producer. In many of the districts of the Lima fields of North-western Ohio and Indiana the unfavourable weather has occasioned a practical supension of drilling, and the returns for the week indicate a material decrease in completions in new production, with the exception of the Oakland City, district of Indiana, three of the four wells drilled during the week being credited with a daily output of 365 barrels. A decrease in completions and new production is also recorded in the Illinois fields chiefly on account of the extremity of winter weather. Development work in Illinois is moving gradually southward to Lawrence county, which will probably command the principal attention of operators when the usual resumption of field work is undertaken in spring. Although the pay sands are encountered at a greater depth in Lawrence than in the other counties of the State, the wells afford a better investment owing to their greater staying qualities. The total runs from the Illinois wells last year amounted to 27,795,774 barrels, while the deliveries were but 10,611,845 barrels. Advices from our Mid-Continent correspondent indicate further encouragement in the conditions there. The pipe lines are being taxed to their capacity to meet the requirements, and the wells shew a decreasing production. With practically no concern now over any pools of magnitude, producers await a rising market for crude in the near future. December statistics of the California fields note a production of 5,141,600 barrels, a gain of 28,400 barrels over the November aggregate. The total for 1909 is reported as 57,632,450 barrels, a record that no other State is likely to exceed. In spite of the steadily increasing output of the California fields the consumption shews a heavier gain, and a shortage of 1,500 barrels a day now faces the trade.

Refined and Products.—No further variation in quotations has marked the interval, and the recent decline in the export schedule for refined continues to exercise a more or less bearish effort on the local market. The foreign demand is comparatively light, and the only charter for prompt or forward engagement consummated since the turn of the year has been one for 170,000 cases for Japan, February shipment from Philadelphia. So far in the new year clearances of refined from the local port have totalled 17,137,750 gallons, of which 11,549,820 gallons were shipped in bulk. For the corresponding period of last year the amount reached 20,537,080 gallons.

CLOSING QUOTATIONS.

Crude at the Wells.

The quotations for oil represented by credit balances were :—

	Week ended Jan. 15. 1909.	Week ended Jan. 15. 1910.
Pennsylvania	$1·78	$1·40
North Lima	1·04	0·84
South Lima	0·99	0·79
Indiana	0·99	0·79
Illinois, heavy, below 30 deg.	0·60	0·52
Kansas and Indian Ter., 30 deg. and above	0·41	0·35
Heavy	0·28	0·28
Humble, Tex.	0·53	0·75
Saratoga	0·53	0·75
Sour Lake, Tex.	0·53	0·77
Jennings, La.	0·55	0·54
Canadian Oil :—		
Petrolia	1·44	1·24
Oil Springs, less pipeage	1·51	1·31

Refined—For Export.

In cents.		Week ended Jan. 15. S.W. 110 test.	W.W. 150 test.
Barrels, cargo	per gal.	7·90	@ 9·40
Philadelphia		7·90	@ 9·40
Bulk, New York		4·40	@ 5·90
Bulk, Philadelphia		4·40	@ 5·90
Cases, New York		10·30	@11 80
Cases Philadelphia		10·30	@11·80

Refined in Cases—110 Fire Test.

	Week ended Jan. 8. 1910.	Jan. 15. 1910.
3,000 to 10,000	10·60	10·45
1,000 to 3,000	10·65	10·50

Refined—Jobbing Lots

In barrels, pkgs. included.

	Week ended Jan. 8.	Jan. 15.
130 fire test, S.W.	11¼	11¼
150 fire test, W.W.	11¾	11¾
In bulk from tanks	9	9

Naphtha and Gasolene.

	Week ended Jan. 8.	Jan. 15.
Naphtha, V. M. and P. deod.	12	12
Gasolene, 86 deg.	21¾	22¾

Pennsylvanian Oil Runs from January 6th to January 12th were :—January 6th, 78,899; January 7th and 8th, 246,270*; January 9th, 327,886*; January 10th, 69,968; January 11th, 82,146; January 12th, 244,685*.

The Deliveries of Pennsylvanian Oil from January 7th to January 13th were:—January 7th, 216,073*; January 8th and 9th, 386,647*; January 10th, 359,627*; January 11th, 220,488; January 12th, 179,069; January 13th, 227,819*.

* Includes Illinois Oil.

Clearances for the Week.

During the week ended Jan. 11th and since Jan. 1, the clearances of petroleum, in gallons, from the port of New York, were as follows : —

	Week.	Year.	1908.
Refined	17,137,750	17,137,750	20,537,080
Crude	613,730	613,730	1,341,280
Naphtha	1,679,745	1,679,745	482,230
Residuum	25,000	25,000	10,500

Export Statistics.

The total exports from the port of New York and from the United States have been :—

	Gallons.
From New York, week ended Jan. 14th	23,464,063
Total from New York, from Jan. 1st, 1909	23,464,063
Same period last year	28,724,053
Decrease	5,529,990
From United States, week ended Jan. 14th	14,651,140
Total from United States, since Jan. 1st, 1909	26,849,929
Same period last year	49,671,765
Decrease	22,821,836

WORTHINGTON & BOLER,
LIVERPOOL, LONDON & GLASGOW.
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The "Review" Shipping List.

JANUARY 28, 1910.

(*The following abbreviations are used in this table:*—L. Left; P. Passed; Arr. Arrived; Sp. Spoken; Tr. Trading.)
Anglo-American Co.'s vessels marked thus (□): the Anglo-Saxon Co.'s tankers thus (*): and Messrs. Lane and Macandrew's thus (†).

Vessel.	From.	For	Latest Date and Position.
ALCHYMIST	Selzaete	London	In Port, Jan. 26
ALICE ET ISABELLE (Fr. bq.)	New York	Rouen	In Port, Dec. 11/09
AMERICAN	Antwerp	Batoum	Cld. Constant'ple, Jan. 15
APPALACHEE □	New York	Flushing	L. Jan. 13
APSCHERON	Ibrail & Rouen	Antwerp	In Port, Jan. 25
ARAL	Tuborg	Tyne	In Port, Jan. 25
ARAS	Port Arthur (Texas)	London	L Jan. 21
ASHTABULA □	Singapore	San Francisco	Sd. Moji, Jan. 10
ASTRAKHAN	Rotterdam	Tyne	Arr. Dec. 22, in Port, Jan. 25
AUGUST KORFF	Philadelphia	Manchester	Arr. Jan. 14, in Port, Jan. 25
AUGUSTA	Brunsbuttel	Hamburg	Arr. Jan. 18, in Port, Jan. 25
AUREOLE	Port Arthur (Texas)	Antwerp	L. Jan. 24
AZOV	Tyne	Trial Trip	L. Jan. 24
BAKU STANDARD	Cardiff	Tyne	In Port, Jan. 25
BALAKANI†	Newport Nws	Manchester	L. Jan. 23
BATOUM	London	Tyne	In Port, Jan. 25
BAYONNE	Batoum	Trieste	Arr. Jan. 23
BEACON LIGHT	Batoum	Hamburg	P. Constant'ple, Jan. 25
BLOOMFIELD	Manchester	New Orleans	At Norfolk (Va.), Jan. 20
BORJOM	—	—	Tr. b'tw'n Black Sea & Levant
BRILLIANT	New York	Alexandria	Arr. Jan. 16
BRILLIANT (Br. bq.)	Bombay	Baltimore & Philadelphia	L. Jan. 5
BRITISH SUN	Philadelphia	Port Arthur (Texas)	L. Jan. 18
BROADMAYNE	Tonsberg	Tyne	In Port, Jan. 25
BUFFALO	Thameshaven	Schulau	At Cuxhaven, Jan. 23
BULLMOUTH*	Singapore	Soesoe	L. Jan. 15
BULYSSES*	Freshwater	Yokohama	L. Jan. 16
BURGERMEISTER PETERSEN	Philadelphia	Hamburg	P. Del. Break., Jan. 15
CADILLAC	Philadelphia & Port Natal	Calcutta	Arr. about Jan. 10
CALCUTTA (B. b.) □	San Francisco	Yokohama	Arr. Jan. 11
CAMILLO	Barry	Novorossisk	Arr. Jan. 23
CAPTAIN A. F. LUCAS	Halifax	New York	70 mls. E. Sandy Hook, Jan 18
CARDIUM*	London	New York	L. Jan. 24
CARPATHIAN†	London	Cardiff	P. Prawle Pt., Jan. 26
CAUCASIAN†	Dublin	Tyne	Arr. Dec. 7
CHARLOIS	Philadelphia	Rotterdam	In Port, Jan. 25
CHESAPEAKE □	New York	Port Natal	Arr. about Jan. 21
CHESTER	Antwerp	Kustendje	P. Dungeness, Jan. 12
CHEYENNE	New York	Savona	P. Tarifa, Jan. 24
CITY OF EVERETT	New York	Havana	P. Cape Canaveral, Jan. 16
CIUDAD DE REUS	New York	Barcelona	In Port, Dec. 28, repairing
CLAM*	Palembang	Tarakan	L. Jan. 12
CLEARFIELD	Rouen	Batoum	Sd. Algiers, Jan. 24
CONCH*	Sabang	—	At Suez, Jan. 21-2
CONRAD MOHR	Blyth	Philadelphia	L. Jan. 15
COWRIE*	Singapore	Balekpappan	L, Jan. 14
CUYAHOGA □	Alexandria	New York	Arr. Jan. 25
CYMBELINE	Newport & Port Arthur (Texas)	Campana	Sd. Port Arthur, Jan. 9
CZAR NICOLAI II.	Hamburg	Batoum	P. Gibraltar, Jan. 18
DAGHESTAN	Batoum	Hamburg	P. Constant'ple, Jan. 18
DAKOTAH □	Manila	San Francisco	Arr. Jan. 27
DANUBIAN†	Liverpool	Port Arthur (Texas)	L. Jan. 24
DELAWARE □	New York & Manchester	Avonmouth	Arr. Jan. 24, in Port, Jan. 25
DERBENT	Antwerp	Batoum	P. Dungeness, Jan. 14
DEUTSCHLAND	New York	Rotterdam	F. Dover, Jan. 25
DIAMANT	Philadelphia	Hamburg	In Port, Jan. 25
EDWARD DAWSON	Hull	Batoum	P. Peniche, Jan. 16
EL LOBO	Yokohama	San Francisco	Arr. Jan. 21
ELAX*	Cochin	Aroe Bay	L. Jan 10
ELISE MARIE	Stettin	New York	Arr. Jan. 25
ENERGIE	Tyne	Philadelphia	P. Dunnet Head, Jan. 18
ERIVAN	Kustendje	Batoum	L. Jan. 22
ETELKA	Fiume	Pola	Arr. Dec. 14
EUPLECTELA*	Singapore	Shanghai	L. Jan. 10
EXCELSIOR	Amsterdam	—	P. Dover, Jan. 26
FRANCE MARIE (French bq.)	Santander	Marseilles	Arr. Jan. 21
GEESTEMUNDE	Philadelphia	Bremerhaven	P. Del. Break., Jan. 18
GENESSE □	Philadelphia	Avonmouth	In Port, Jan. 25
GEORGIAN PRINCE	Kustendje	Vallo	Arr. Jan. 23
GOLDMOUTH*	Cardiff	Singapore	Arr. Jan. 25
GUTHEIL	Lisbon	Matanzas	L. Jan. 5
H. C. HENRY	Taltal	Rotterdam	In Port, Jan 25
HAINAUT (Du. sh.)	Antwerp	New York	P. Ventnor, Dec. 13
HARRY WADSWORTH	Hull	Port Arthur	P. Prawle Pt., Jan. 20
HELIOS	Copenhagen	Philadelphia	Sd. Tyne, Jan. 26
HERMIONE	Colombo	Malta	Arr. Jan. 20-21
HESPERUS	New York	Nordenhamn	L Jan. 20
HOTHAM NEWTON	Zeebrugge	Hull	In Port, Jan. 26
HYRCANIA	Hull	Batoum	Cld. Constant'ple, Jan. 12
IOANNIS COUTZIS	Marseilles	Taganrog	At Piræus, Jan. 18
IROQUOIS □ (towing barge Navahoe)	London	New York	Arr. Jan. 24
J. B. AUG. KESSLER	Karatzu	St. Cath'rine's Point	Sd. Port Natal, Dec. 24
JAMES BRAND	London	Tyne	In Port, Jan. 18, laid up
JOYO MARU	—	—	Now "Camillo," which see
JULES HENRI (French bq.)	Cette	Marseilles	In Port, Jan. 22
KURA	Hull	Kustendje	P. Gibraltar, Jan. 20
LA CAMPINE	Philadelphia	Antwerp	P. Del. Break., Jan. 12
LA FLANDRE	Philadelphia	Antwerp	L. Jan. 15
LA HESBAYE	Antwerp	Kustendje	P. Gibraltar, Jan. 16-17
LACKAWANNA □	London	Hamburg	In Port, Jan. 25
LE COQ†	Blaye	Kustendje	P. Gibraltar, Jan. 20
LOUTSCH	Batoum	Odessa	L. Dec 24
LUCERNA	Novorossisk	Ghent	Arr. Jan. 17
LUCIGEN	Trial Trip	Tyne	In Port, Jan. 25, laid up
LUCILINE†	Algiers	Rouen	L. Jan. 21
LUMEN	Calais	Tyne	In Port, Jan. 25
LUTETIAN†	Furth	Newport (Mon.)	Arr. Jan. 17
LUX†	Algiers	Dunkerque	L. Jan. 25
MANHATTAN	New York	Malta & Tunis	L. Jan. 13
MANNHEIM	Philadelphia	Copenhagen	P. Del. Break., Jan. 13
MARGARETHA	Avonmouth	Baltimore	Arr. Jan. 18
METEOR	Vladivostock	Nagasaki	L. Dec. 28
MEXICAN PRINCE	London	Tyne	In Port, Jan. 25
MINA BREA	Caleta Buena	Callao	In Port, Dec. 31
MINHLA	Rangoon	Chittagong	L. Jan. 23
MIRA	Calais	Blyth	In Port, Jan. 25, laid up
MUREX*	Port Natal	Singapore	L. Jan. 6
NARRAGANSETT	New York	Flushing	L. Jan. 15
NAVAHOE	London	New York	Sp. Jan. 16, 48 N., 35 W.

Vessel.	From.	For.	Latest Date and Position.
NEW YORK □	Rotterdam	New York	Arr. Jan. 19
NIAGARA	New York	Calcutta	Arr. about Jan. 19
OBERON	Taltal	Pt. San Luis	Arr. Jan. 19
OCEAN	New York	Amsterdam	L. Jan. 18
OILFIELD	Rouen	Tyne	In Port, Jan. 25
ORIFLAMME†	Batoum	Constant'ple	In Port
OTTAWA □	Sunderland	New York	P. Dunnet Head, Jan 18
OURAL	Batoum	Rouen	P. Gibraltar, Jan. 23-24
PATELLA*	Tyne	Singapore	P. Cape Point, Jan. 19
PAUL PAIX	Calais	Tees	In Port, Jan. 25
PAULA	New York	Stettin	Arr. Jan. 24
PECTAN	Pt. San Luis	Panama	Arr. Jan. 4
PENNOIL	Rotterdam	Philadelphia	P. Scilly, Jan. 20
PETROLEINE	Batoum	Cette	Cld Constant'ple, Jan. 17
PHOEBUS	Rotterdam	New York	Arr. Jan. 26
PINNA†	Yokohama	Dalny	L. Jan. 22
POTOMAC □	Tyne	Philadelphia	Arr. Jau. 26
PROGRESSO ARGENTINA (Ar. bq.)	Port Arthur (Texas)	Buenos Ayres	Arr. Dec. 10
PROMETHEUS	Rotterdam	New York	Off the Wight, Jan. 20
PRUDENTIA	Hull	New Orleans	Cld. St. Michael's, Jan. 26
PURELIGHT	Philadelphia	Dover	P. Del. Break., Jan. 15
QUEVILLY (Fr. bq.)	Rouen	Havre	In Port, Jan. 24
RENDOVA (Br. bq.)	Bonanza	Sydney	Sp. Oct. 31, 19 N., 25 W., "All well"
RION	Amsterdam	Blyth	Arr. Dec. 21, in Port, Jan. 25
ROCK LIGHT†	Sunderland	Galveston	P. Gravesend, Jan. 26
ROMANY*	Soesoe	Freshwater	Arr. Jan 14
ROTTERDAM	Amsterdam	New York	L. Jan. 16
ROUMANIAN†	Antwerp	Kustendje	P. Beachy Head, Jan. 27
RUSSIAN PRINCE	Liverpool	Havana	L. Jan. 5
SALAHADJI*	Penang	Soesoe	L. Dec. 13
SAN ANTONIO	London	Puerto Mexico	Arr. Jan. 7. ? Sd. Jan. 15, Philadel.
SAN IGNACIO DE LOYOLA (Sp. bq.)	Pasages	New York	L. Oct 23
SANTA MARIA	San Francisco	Honolulu	L. Jan. 15
SANTA RITA	Pt. San Luis	San Francisco	L. Jan. 5
SARANAC □	New York	Liverpool	In Port, Jan. 26
SAXOLEINE	Rouen	Kustendje	Sd. Algiers, Jan. 24
SCHUYLKILL	Shanghai & Cebu	New York	Arr. Dec 24, in Port, Jan. 12
SEMINOLE □	San Francisco	Shanghai	Arr. about Jan. 17
SERVIAN†	London	Port Arthur (Texas)	Arr. Jan. 22
SNOWFLAKE	Cette	Newport	In Port, Jan 26
SOYO MARU	—	Honolulu	Arr Jan. 17
SPONDILUS*	Bombay	Samboe	Arr. Jan. 15
STANDARD	Philadelphia	Swinemunde	P. Dunnet Head, Jan. 23
STROMBUS*	Rotterdam	New York	Sp. Jan. 16, 40 mls. W. Scilly
SULTAN VAN LANGKAT*	Soesoe	Sydney	Arr. about Jan. 11
SUNLIGHT (Br. bq.)	Avonmouth	W. Indies	Sp. Jan. 16, 52 N., 7 W.
SURAM	Port Arthur (Texas)	Avonmouth	Sd. Norfolk (Va.), Jan. 24
SUWANEE □	Corcubion	New York	L. Jan. 21
SVIET	Flushing	Batoum	Cld. Constant'ple, Jan. 17
TAMARAC □	London	Philadelphia	In Wireless Com., Browhead, Jan. 23
TELENA*	Thameshaven	London	In Port, Jan. 26
TEREK†	London	Kustendje	P. Dover, Jan. 24
TEXAS	New Orleans	Port Arthur (Texas)	Arr. Nov. 13
TIFLIS	Manchester	Philadelphia	Sd. Liverpool, Jan. 3
TIOGA □	New Orleans	Philadelphia	Sd. Port Eads, Jan. 16
TONAWANDA □	London	Tyne	In Port, Jan. 26
TRINCULO	San Francisco	Taltal	Arr. Jan. 6
TROCAS*	Shanghai	Balekpappan	Arr. Jan. 16
TUSCARORA	Tyne	New York	Arr. Jan. 24
VEDRA	Port Arthur (Texas)	Liverpool	P. Cape Henry, Jan. 12
VILLE DE DIEPPE (Nor. bq.)	Philadelphia	Rouen	In Port, Jan. 24, laid up
VOLUTE*	Karatzu	Singapore	L. Jan. 11
WASHINGTON	Philadelphia	Hamburg	In Port, Jan. 25
WASHTENAW	—	Puget Sound	Off Astoria Bar, Jan 17-18
WEEHAWKEN	Dublin	New York	P. Browhead, Jan. 14
WILLKOMMEN	Stockholm	Hamburg	In Port, Jan. 25
WINNEBAGO	Balekpappan	New York	At St. Vincent (C.V.), Jan. 14

Latest Market Intelligence.

LONDON OIL MARKET.

Supplied by Messrs. Benjamin & Gee, 31, St. Mary Axe, E.C.

Jan. 28th, 1910.

The Refined Petroleum is unaltered in price as follows :—Russian, 5¾d.; Roumanian, 7d.; American, 6d.-6¼d.; Water White, 7d.-7¼d.

LUBRICATING OILS

are unchanged, the latest quotations being for :—

American pale, £6 10s. to £10 10s.
American dark cylinder, from £7 12s. 6d.
American filtered cylinder, from £10 12s. 6d.
No. 1 Russian, for Spot, £8 2s. 6d.

TURPENTINE.

American Turpentine has been a very dull market and is quoted for :—Spot 42s., Feb.-June 42s. 6d.

LIVERPOOL OIL MARKET.

Jan. 28th.

Refined oils are quiet, and sellers quote 6¾d., for Russian, Galician or Roumanian ; and 7¼d. to 8¼d. per gallon for American.

LATEST AMERICAN PRICES.

New York, Jan. 28th.

Refined, in cases, is steady at 10·30; Standard White, 7·90; Credit balances, 1·40.

Philadelphia, Jan. 28th.

Standard White is now quoted at 7·90.

GERMANY.

Hamburg, Jan. 27th.

American, ·800–6·30 marks; Pennsylvanian, 6·40 marks; Galician, 6·30 marks. Russian and Roumanian not on the market.

RUSSIA.

Baku, Jan. 25th.

The market is now steady. Crude oil is quoted at 18¾ copecs per pood spot, Kerosene, in ships, 25 copecs spot; 27½ copecs next navigation. Mazout 19 copecs. Export at Batoum is stagnant.

BELGIUM.

Antwerp, Jan. 26th.

The petroleum market is without change. Price of Standard White, spot, 22·50 francs per 100 kilos.

ROUMANIA.

Jan. 26th.

	Francs.
Crude oil from different fields, including pipe line charges, per 100 kgs.	3·60–3·70
Refined oil, exclusive of taxes, ex. refinery	8·30
Residuals in tank waggons, at refinery	3·40–3·50
Paraffin	110–120
Prices for Export.	
Refined oil, f.o.b., per 100 kgs.	6·75–7·00
Benzine, sp. gr. 0·710–0·715, f.o.b.	16–17
„ sp. gr. 0·715–0·720 „	14·50–15·50
„ sp. gr. 0·730–0·740 „	10–11
„ sp. gr. 0·745–0.755 „	9–10
Lubricating, horticultural	32
„ prime	35
„ extra	40
„ Royal, "Steaua Romana"	45
Imperial "Aurora"	45
Vacuum-Ideal "Vega"	52

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IMPORTS of PETROLEUM into UNITED KINGDOM

Specially prepared for this Journal by the Custom House.

FOR THE WEEK ENDED JANUARY 17TH, 1910—

Date.	Port and Importers.	Description.	No. of Gals.	Port Whence.
Jan.	London—			
11	G. and H. Green	L.Comp.	4,600	New York
11	Fielder, Hickman and Co.	Lub.	8,600	,,
11	Port of London Authority	,,	6,000	,,
11	Mordaunt Bros.	,,	2,100	,,
11	Port of London Authority	,,	2,880	Hamburg
11	,,	,,	240	Antwerp
11	Page, Son and East	,,	120	,,
11	Thomas and Bishop	Lub. Gr.	70	Rotterdam
12	Anglo-American Oil Co.	Lub.	17,760	New York
12	Mercantile Lighterage Co.	,,	52,000	,,
12	Fielder, Hickman and Co.	,,	40	,,
12	Schlieman's Oil Co.	Lub. Oil and Gr.	4,650	Hamburg
12	A. Vaughan	Lub.	210	,,
12	Asiatic Petroleum Co.	Mot.Spirit	10,000	Rotterdam
13	Anglo-American Oil Co.	Lub.	63,200	Philadel.
13	Port of London Authority	,,	160	Boston
13	Schlieman's Oil Co.	Lub. Gr.	3,300	Hamburg
13	Page, Son and East	Lub.	880	Antwerp
14	T. H. Lee	Lub. Gr.	410	Hamburg
14	M. H. Winkley andCo.	Lub.	4,000	,,
14	J. Johnston	,,	2,000	,,
14	W. Hodgson and Co.	,,	2,000	Riga
14	Fielder, Hickman and Co.	Lub Gr.	400	New York
14	Anglo-American Oil Co. (Tamarac)	Gas	269,020	Philadel.
14	British Pet. Co. (Terek)	,,	846,000	Pt. Arthur
14	,, ,,	Lamp	478,000	,,
14	,, (Rocklight)	Gas	226,000	,,
14	,, ,,	Fuel	294,000	,,
14	,, ,,	,,	2,370	,,
15	Anglo-American Oil Co. (Tamarac)	Gas	1,373,500	Philadel.
15	Scott's Wharf	Lub.	2,000	New York
17	Monogram Oil Co.	,,	2,700	,,
17	Langley, Smith and Co.	,,	2,240	Philadel.
17	Port of London Authority	,,	480	Hamburg
17	T. H. Lee	Lub. Oil and Gr.	610	,,
17	British and Foreign Wharf	Lub.	210	Antwerp
17	C. Price and Co.	,,	280	,,
17	J. Harrison	,,	300	,,
17	Page, Son and East	Lub. Gr.	200	,,
17	,,	Lub.	80	,,
	Liverpool—			
11	D. Owen and Sons	,,	2,290	New York
11	Vacuum Oil Co.	,,	6,800	,,
11	Anglo-American (Aug. Korff)	,,	618,000	Philadel.
12	R. Davidson and Co.	L.Comp.	1,000	Antwerp
12	Crew, Levick and Co.	Lub.	4,220	Hamburg
12	J. Light and Son	Lub. Oil and Gr.	2,400	New York
12	G. B. Taylor	Lub.	24,760	,,
12	Burnaby and Chantrell	Lub. Gr.	2,460	,,
Jan.				
13	Ismay, Imrie and Co.	Lub.	1,840	New York
13	Langley, Smith and Co.	,,	1,130	Philadel
13	Worthington and Boler	Lub. Gr.	200	,,
13	,,	M.Colza	600	,,
13	,,	Lub.	12,400	,,
14	Bowring Petroleum Co.	,,	2,160	,,
14	Fellowes, Morton & Clayton	,,	2,060	,,
14	Bramwell, Fern and Co.	,,	4,500	,,
14	G. B. Taylor	,,	37,400	,,
14	Crew, Levick and Co.	,,	14,970	,,
14	,,	M.Colza	4,220	,,
14	Meade-King, Robinson & Co.	Lub.	16,920	,,
14	E. Harrison and Co.	,,	4,000	,,
15	American Line	,,	3,600	,,
15	W. B. Dick and Co.	,,	14,310	,,
15	Midland Railway	,,	1.230	,,
15	E. H. Kellogg and Co.	,,	2,000	New York
15	G. B. Taylor	,,	12,000	,,
15	W. B. Dick and Co.	,,	7,840	Baltimore
17	A. Hopps and Sons	,,	2,980	,,
17	Meade-King, Robinson & Co.	,,	21,200	,,
17	,,	,,	1,600	Philadel.
17	Crew, Levick and Co.	,,	810	,,
17	Stockdale and Doel	,,	8,800	Boston
17	Burnaby and Chantrell	Lub. Gr.	170	Hamburg
	Bristol—			
11	Pickfords, Ltd.	Lub. Oil and Paste	560	,,
11	H. R. James and Co.	Lub.	1,990	New York
11	C. Hill and Sons	,,	26,400	,,
17	J. and R. Bush	,,	32,840	,,
	Goole—			
15	Goole S.S. Co.	,,	200	Hamburg
	Grimsby—			
14	J. Sutcliffe and Son	,,	440	Antwerp
	Hartlepool—			
11	W. Hartlepool S.N. Co.	Lamp	2,000	Hamburg
	Harwich—			
11	Great Eastern Railway	Lub. Gr.	180	Antwerp
	Hull—			
12	T. Wilson Sons and Co.	Lub.	8,000	Trieste
13	Wilsons and N.E. Co.	,,	1,440	Hamburg
13	,,	,,	800	Antwerp
15	W. Gilyott and Co.	,,	57,000	New York
15	T. Wilson, Sons and Co.	,,	35,000	,,
15	T. M. Roberts and Co.	Lub. Gr.	240	Hamburg
	Manchester—			
11	Crew, Levick and Co.	Lub.	4,440	Philadel.
11	,,	M.Colza	1,270	,,
11	Manchester Liners, Ltd.	Lub.	2,600	,,
11	Liverpool Storage Co.	,,	19,780	New York
11	,,	Lub. Gr.	2,180	,,
13	W. Hodgson and Co.	,,	1,120	,,
13	Bramwell, Fern and Co.	Lub.	2,250	,,
13	Diamond Lubricating Co.	,,	3,130	,,

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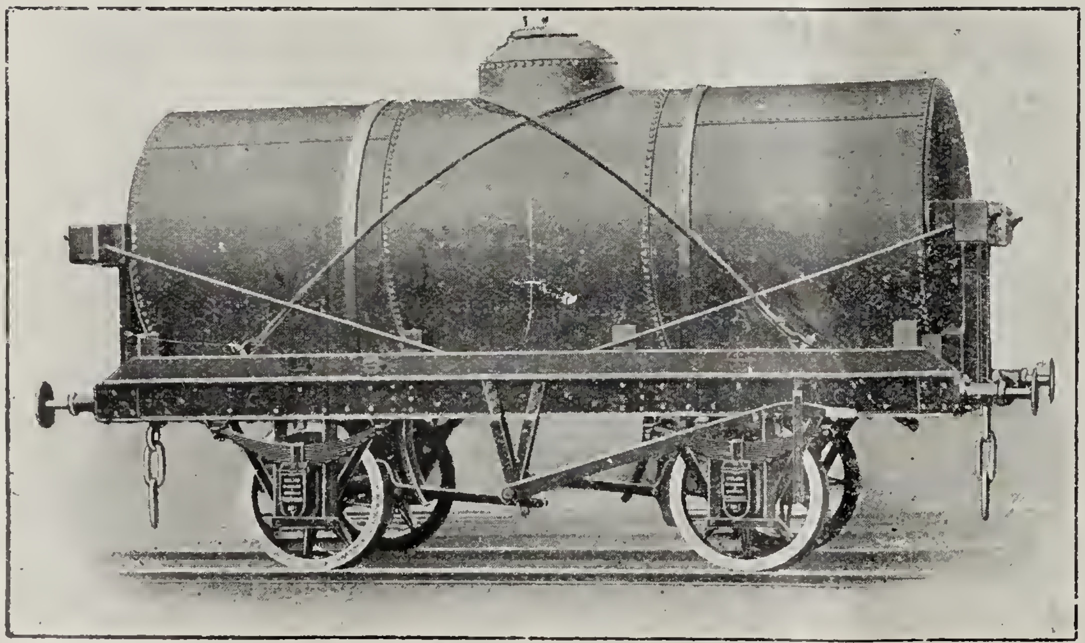

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IMPORTS.—(*Concluded*).

Date. Jan.	Port and Importers	Description.	No. of Galls.	Port Whence.
	MANCHESTER—			
13	D. Currie and Co.	Lub.	120	Hamburg
13	George B. Taylor	,,	103,560	New York
13	R. Thompson and Co.	,,	2,600	Philadel.
17	Anglo-American (Aug. Korff)	,,	652,000	,,
	NEWCASTLE—			
14	Tyne-Tees S.S. Co.	,,	1,080	Hamburg
14	,,	Lamp	4,000	,,
14	,,	Lub.	2,080	Antwerp
	SUNDERLAND—			
11	British Pet. Co. (Rocklight)	Fuel	384,000	Pt. Arthur
11	,, ,,	Gas	52,000	,,
	SOUTHAMPTON—			
11	P. E. Curry	Lub.	1,240	New York
	SWANSEA—			
11	Richards, Turpin and Co.	,,	1,600	,,
17	Bristol S. Navigation Co.	,,	240	Antwerp
	ABERDEEN—			
11	W. Graham-Yooll and Co.	Lamp	3,280	Hamburg
	DUNDEE—			
12	D. Alexander and Sons	Lub.	200	,,
12	A. Gray	Lamp	410	,,
	GLASGOW—			
11	Clyde Shipping Co.	Lub. Gr.	120	Antwerp
12	Allan Bros. and Co.	Lub.	17,680	Philadel.
13	Anchor Line	,,	53,520	New York
	GRANGEMOUTH—			
15	W. Graham-Yooll and Co.	Lamp	4,800	Hamburg
17	,,	,,	4,800	,,
17	J. Currie and Co.	,,	2,440	,,
	LEITH—			
11	J. Currie and Co.	,,	440	,,
11	,,	,,	240	Bremen
13	G. Gibson and Co.	,,	4,040	Antwerp
	BELFAST—			
11	J. C. Pinkerton and Co.	,,	180	,,
	Total for the Week		6,025,010	

FOR THE WEEK ENDED 24TH JANUARY, 1910—

Date. Jan.	Port and Importers	Description.	No. of Galls.	Port Whence.
	LONDON—			
18	Fielder, Hickman and Co.	Lub.	6,760	New York
19	G. and H. Green	L.Comp.	3,610	,,
19	W. F. Watt	Lamp	2,680	Philadel.
19	Asiatic Petroleum Co.	Benzine	10,050	Rotterdam
20	A. Vaughan	Lub.	210	Hamburg
20	Anglo-American Oil Co.	,,	97,040	New York
20	Page, Son and East	Lub. Oil and Gr.	800	Antwerp
20	T. H. Lee	Lub. Gr.	120	Hamburg
21	Perkins and Homer	Lub.	2,400	Philadel.
21	British and Foreign Wharf	,,	800	Antwerp
21	T. H. Lee	Lub. Gr.	210	Hamburg
21	British Petroleum Co. (Carpathian)	Lamp	1,680,000	Pt. Arthur
21	United Asbestos Co.	Lub.	1,200	Philadel.
22	Produce Brokers	,,	8,000	,,
22	Worthington and Boler	,,	5,400	,,
22	Mordaunt Bros.	,,	10,450	,,
24	Juett and Cain	,,	4,800	,,
24	Lub. and Fuel Oils Co.	,,	10,660	,,
24	A. Brown and Co.	,,	4,000	,,
24	,,	Lamp	3,000	,,
24	C. Jameson	Lub.	1,960	,,
24	E. J. Walkinshaw	,,	3,960	,,
24	Scott's Wharf	,,	2,000	New York
24	W. H. J. Alexander	,,	2,050	,,
24	Port of London Authority	,,	4,800	Hamburg
24	T. H. Lee	Lub. Gr.	100	,,
24	Produce Brokers' Co.	Lub.	1,200	Antwerp
24	Page, Son and East	,,	80	,,
24	J. Harrison	Lub. Gr.	600	,,
	LIVERPOOL—			
18	C. C. Wakefield and Co.	,,	790	,,
20	A. Hopps and Sons	L. Resid.	7,830	N. Orleans
21	Pickfords, Ltd.	Lub. Oil and Paste	190	Hamburg
21	Vacuum Oil Co.	Lub.	1,200	New York
22	W. B. Dick and Co.	,,	15,310	,,
24	G. B. Taylor	,,	52,960	,,
24	D. Owen and Son	,,	1,790	,,
24	W. Gibson and Sons	Lamp	3,080	Boston
24	Penwarden and Jackson	Lub.	400	Antwerp
24	C. W. Field and Co.	,,	260	,,
24	Pickford's, Ltd.	Lub. Oil and Paste	250	Hamburg
	BRISTOL—			
18	C. Hill and Sons	Lub.	11,960	New York
18	E. Stock and Sons	,,	800	Hamburg
20	,,	,,	2,000	,,
21	First Anglo-Russian Oil Co.	Lub. Gr.	680	,,
21	Pickfords, Ltd.	Lub.	240	Antwerp
21	W. G. Clarke	,,	240	,,
21	Colhurst and Harding	,,	2,400	Hamburg
22	H. Pritchard and Co.	,,	4,200	New York
	GOOLE—			
18	Goole Steamship Co.	,,	140	Hamburg
	GRIMSBY—			
20	J. Sutcliffe and Son	,,	480	Antwerp
	WEST HARTLEPOOL—			
18	W. Hartlepool S.N. Co.	,,	600	Hamburg
	HARWICH—			
20	Great Eastern Railway	,,	340	Antwerp
	HULL—			
18	Wilsons and N.E. Co.	,,	2,720	,,
30/12	,,	Fuel	4,640	Hamburg
18	,,	Tar Oil	2,800	,,
19	T. Wilson Sons and Co.	,,	240	Odessa
19	Hull & Netherlands SS. Co.	Lub.	240	Rotterdam
20	Wilsons and N.E. Co.	,,	680	Hamburg
20	,,	,,	2,040	Antwerp
22	T. Wilson, Sons and Co	,,	1,080	Stettin
	MANCHESTER—			
18	Diamond Lubricating Co.	L.Comp.	220	New York
18	Wilson, Son and Co.	Lub.	120	Rotterdam
20	D. Currie and Co.	,,	240	Hamburg
21	Anglo-American Oil Co. (Delaware)	Lamp	767,680	New York
24	Meade-King, Robinson & Co.	Lub.	20,880	Philadel.
24	,,	M.Colza	7,800	,,
24	Manchester Liners	Lub.	5,360	,,
	NEWCASTLE—			
20	Tyne Tees SS. Co.	Lamp	290	Rotterdam
	NEWPORT—			
17	M. Jones and Co.	Lub. Gr.	870	Antwerp
	SOUTHAMPTON—			
20	White Star Line	Lub.	9,230	NewYork
	DUNDEE—			
20	D. Alexander and Sons	,,	120	Hamburg
	GLASGOW—			
18	Anchor Line	,,	24,650	New York
18	,,	,,	35,600	,,
18	Clyde Shipping Co.	Lub. Gr	350	Antwerp
	GRANGEMOUTH—			
20	W. Graham-Yooll and Co.	Lamp	4,800	Hamburg
20	J. Currie and Co.	Lub.	1,200	,,
	LEITH—			
17	G. Gibson and Co.	,,	440	Antwerp
17	J. Currie and Co.	,,	1,060	Hamburg
20	W. G. Yooll and Co.	Lamp	2,180	,,
20	G. Gibson and Co.	Lub.	720	Antwerp
	BELFAST—			
20	G. Heyn and Sons	,,	2,000	Riga
	Total for Week		2,877,330	
	Total for the Fortnight		8,902,340	

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The Petroleum Review.

By PAUL DVORKOVITZ.

Vol. XXII. *(New Series.)* February 12th, 1910. No. 470

THE PETROLEUM REVIEW:

The ANNUAL SUBSCRIPTION for both English and Foreign readers is 26s., including Postage. Single Copies may be had at the offices at 1s.

The Editor would esteem it a favour if readers, when communicating with the various firms advertising in our pages, would mention the "Review."

Contributions upon items of interest are always welcomed from subscribers, but in each case these should be accompanied with the name and address of the sender, not necessarily for publication.

Editorial Notes.

"The Petroleum Review." With this issue the Review completes the eleventh year of its publication. When we come to look back through these eleven past years of earnest work spent on behalf of the petroleum industry by the dissemination of useful information appertaining to all branches, we cannot but feel gratified at the fact that from the inception of our then very modest publication on February 18th, 1899, we have had the good wishes of the general body of members of the petroleum industry with us. We have at all times pursued a consistent policy of fearless criticism in regard to matters affecting the welfare of petroleum commerce—at times we have had to strike hard—at others we have given praise and honour where that were due. But throughout its career, the Review has always recognised that its chief mission has lain in the keeping of its subscribers well-informed upon all petroleum topics of the day, from whatever part of the world they come, in using its influence upon every occasion in extending the sphere of usefulness of petroleum products, and in convincing the most sceptical that whatever some of the past records may have brought, there is no safer investment to-day than that of a solidly and honestly conducted petroleum enterprise. After a strenuously active eleven years of existence we are pleased to say that the Review wields an influence which is second to none of any petroleum journal in the world, and we have every reason to believe that as time goes on, the Review will be found to be more than ever before, in the fore-front of technological literature.

Our Leading Petroleum Import Ports. A glance at the total imports of petroleum products into the United Kingdom for the past year, and the various ports of entry, furnishes much evidence as to the several ports of the United Kingdom which are now generally looked upon as ocean storage depôts for the enormous quantities of petroleum products consumed year by year in this country. London naturally takes the major portion of the bulk petroleum imports, and her total figures of 182,000,000 gallons for last year are 14,000,000 gallons in excess of those for the previous twelve months. The next greatest increase was in the bulk shipments to Barrow—an ocean storage depôt which is steadily rising in public favour. Barrow's imports for last year were nearly 17,000,000 gallons, or almost 6,000,000 gallons ahead of the figures for 1908. The bulk petroleum imports into Liverpool increased during 1909 by over 3,000,000 gallons, and those of Manchester by half-a-million gallons. On the other hand, Bristol's imports of petroleum products declined by over 3,000,000 gallons to a total of 25,000,000 gallons, while there was a similar drop in the figures of Hull. The largest decrease, however, was recorded against Dublin, where its imports fell from 10,200,000 gallons in 1908 to 5,700,000 gallons in 1909.

The Latest Petroleum "Scheme." In spite of the most scathing criticism that has ever been hurled against any commercial proposition, the Oil and Ozokerite Co., Ltd., has made its appeal to the British public for finance, and we on our part sincerely trust it will meet with the true amount of support it deserves. Never in the history of oil company flotation—bad as sometimes it has been—have we ever come across a "scheme" which merits such condemnation as the present proposition justifies. In the Review for the past two issues, we have commented at length upon this, the latest idea, of extorting finance from a very free, yet unsuspecting British public, and therefore at this eleventh hour it is only necessary that we should again place upon record our emphatic protest that such an absolutely preposterous proposition should ever have been allowed to see the light of day. Since our first attack upon the Oil and Ozokerite Co. we are gratified to see that matters have somewhat changed, for to their credit be it said, two well known and highly respected gentlemen in the commercial world have withdrawn their names from the board of directors. The pity of it all is that other gentlemen have allowed themselves to be drawn into the "scheme," which until its dying day will stand forth as being one of the most remarkable pieces of company promotion ever associated with the City of London. As we say, we are sorry for the directors, but a thousand times more so for the poor British investor, who may-be will pin his faith to a proposition which, even as it stands on paper, is worse than ludicrous.

America's Petroleum Trade Abroad. The official figures which have lately been published giving the details of America's petroleum export trade for 1909, and which are reproduced upon another page of this issue, may be said to be on the whole fairly satisfactory. They shew a decided advance of 20,000,000 upon the figures for the preceding year, but at what enormous cost this new trade has been won is seen from the values—for these shew a decline of 5,500,000 dollars. The great backbone of the American export trade, however, shews signs of decay, for we find that in regard to illuminating oil the past year's figures are considerably behind those of 1908, the decrease being over 80,000,000 gallons. In the export of other petroleum products, however, the past year has witnessed considerable gains. The export of motor spirit was 20,000,000 gallons in excess of the figure of 1908, while 1909 witnessed a substantial improvement in the foreign demand for lubricating oils, paraffin and residuum. The increase in the values, however, was by no means commensurate with the increased volume, and thus it may be reasonably argued that America's petroleum export trade is being maintained in the face of very fierce competition.

DEATH OF MR. SERGE PALASHKOVSKY.

A PIONEER OF THE RUSSIAN PETROLEUM INDUSTRY.

It is with deep regret that we have to record the decease of Mr. Serge Palashkovsky, one of the most enterprising and able pioneers of the Russian petroleum industry. Born in 1843 the deceased gentleman completed his training in 1853, at the Institute of Railway Engineers. After he had gained a great deal of practical experience in regard to railway construction, amongst others as sectional Chief during the construction of the Kursk-Kharkov-Azov line, he was appointed the St. Petersburg Attorney of the Poti-Tiflis Railway Co. Thanks to his persistent endeavours the company secured the concession for the construction of the Tiflis-Baku Railway, a line which Mr. Palashkovsky constructed, with the assistance of Mr. A. Bunge. Immediately upon the termination of the Russo-Turkish war (in 1877) the company succeeded in obtaining the concession for the extension of the Baku line to Batoum. He and Bunge then constructed the Port of Batoum and the Tkvibulsk colliery railway and re-constructed the Suram Pass. Whilst engaged on the construction of the Trans-Caucasian Railway, Mr. Palashkovsky already matured plans for supplying the line with freights, and with this object in view promoted the Caspian and Black Sea Co., exclusively for the purpose of exporting Russian kerosene abroad. Bearing in mind the fact that this new company had to meet the great American competition, we cannot help admiring the pluck, perseverance, and energy of this Russian pioneer.

However, in spite of the greatest imaginable opposition, American oil, which formerly was almost exclusively sold at Batoum, was gradually ousted from many of the markets in Europe and Asia. Storage was provided at the principal Mediterranean ports, in India, Indo-China, China and Japan. In four years of embittered competiton, this exclusively Russian enterprise had already succeeded in securing a firm footing in the universal oil markets, when its further development was suddenly put a stop to by the outbreak of Bismark's famous financial campaign against Russia.

The Deutsche Bank immediately stopped the credit of the Caspian and Black Sea Co., and failing to secure the assistance of any of the Russian Bourses, and the Government bank included, Mr. Palashkovsky was practically forced to sell the enterprise to the Rothchilds.

Together with Mr. Bunge, he next constructed the Port of Novorossisk, re-constructed the greater part of the Port of Odessa, practically doubled the berthing capacity and general equipment of the Port of Poti, and executed important extensions at the Port of St. Petersburg, in addition to a number of railway contracts and bridge constructions, numbering amongst others, across the Don, the Vistula at Warsaw and Novageorgievsk, and the Volga at Astrakhan.

Other promotions of these two enterprising pioneers are the Black Sea Building Co., having for object the erection of armoured cement structures, and a company for the extraction of the rarer metals, the works of which are at St. Petersburg. Apart from the great practical interest taken by him in the recently discovered oil field at Maikop, the deceased had made a start on the extensive work of irrigation in the Murgan Desert in Transcaucasia and on the construction of the Eysk railway in the Black Sea section of the Northern Caucasus. It is worth mentioning in connection with this latter enterprise that he succeeded in placing the shares of this line exclusively in Russia—a fact almost without precedent in the annals of Russian railway construction.

Mr. Palashkovsky was in London toward the end of last year, it being just prior to Christmas that he returned to Cannes, in order to spend the festive season in the midst of his family. Pneumonia followed his arrival at Cannes, and on the 23rd of December the career of Mr. Serge Palashkovsky drew to a close.

CLASSIFIED IMPORTS INTO UNITED KINGDOM UP TO FEBRUARY 7th, 1910.

IN GALLONS.

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Country.	Illuminating.		Lubricating.		Residuals.		Gas Oil. (Solar)		Benzine.		Fuel Oil.		Other Descriptions.		Totals.	
	Since Jan. 24.	From Jan. 1.	Since Jan. 24.	From Jan. 1.	Since Jan. 24.	From Jan. 1.	Since Jan. 24.	From Jan. 1.	Since Jan. 24.	From Jan. 1.	Since Jan. 24.	From Jan. 1.	Since Jan. 24.	From Jan. 1.	Since Jan. 24.	From Jan. 1.
Austria ...	—	—	—	8,000	—	—	—	—	—	—	—	—	—	—	—	8,000
Belgium ...	—	—	18,810	50,500	—	—	—	—	—	—	—	—	—	510	18,810	51,010
Canada ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dutch India.	—	—	—	—	—	—	—	—	1,724,750	3,833,870	—	—	—	—	1,724,750	3,833,870
Germany ...	48,260	94,560	47,170	122,590	—	2,000	—	—	—	—	200	4,840	400	3,200	96,030	227,190
Holland ...	—	290	140	570	—	—	—	—	5,000	361,450	—	—	250	2,270	5,390	365,080
Roumania ...	—	—	—	—	—	—	—	—	—	950,400	—	—	—	—	—	950,400
Russia ...	810,000	810,000	9,960	15,960	—	—	—	—	—	—	—	—	—	240	819,960	826,200
U.S.A. ...	524,720	3,472,660	1,821,540	5,108,080	16,270	28,120	1,325,750	5 378,400	—	—	—	680,370	19,240	44,120	3,707,520	14,711,750
Other Countries	—	—	280	1,240	--	—	—	—	—	—	—	—	—	1,600	280	2,840
	1,382,980	4,377,510	1,897,900	5,306,940	16,270	30,120	1,325,750	5,378 400	1,729,750	5,145,720	200	685,210	19,890	52,440	6,372,740	20,976,340

The Roumanian Petroleum Industry during 1909.

A GENERAL REVIEW OF THE PAST YEAR'S OPERATIONS.

The year 1909 proved for the Roumanian petroleum industry to be a year of consolidation and real progress, and at the same time it definitely established a record in regard to the petroliferous wealth of the country.

The year 1908 brought stagnation in the production of petroleum. While the increase in the production during 1907 in comparison with 1906 was 250,000 tons, it was but an advance of 20,000 tons in 1908. It was at this time that there began to appear to be some ground for doubt as to whether Roumania was really as rich in oil as it was generally believed to be.

But the past year definitely put aside all pessimism on this account, for the results of operations have completely justified the conviction of the competent scientists and of the capitalists who, in believing them, have placed their fortunes into the Roumanian petroleum industry.

A View of the Campina-Poiana Field as it Appears To-day.

The year 1909 registered a considerable increase in the production of crude oil, amounting to 150,000 tons the total production during 1909 being 1,130,000 tons, as against 1,150,000 tons in 1908.

This result is the more satisfactory, as the larger part of the increase has been obtained not by way of forcing the production on the older fields, but by the exploitation of an old neglected field, which is now proved to contain an enormous wealth in oil, namely, that of Tintea. No doubt a similar extensive exploitation of other petroliferous localities will bring similarly gratifying results – rich petroliferous reservoirs will be found in them, and the Roumanian production will acquire a new importance.

The Campina and Moreni fields during 1909 also again proved their extensive wealth in oil, and therefore their future rolê in the development of the Roumanian petroleum industry is now assured.

From the financial point of view, the year 1909 has not seen any notable additions of new capital in the petroleum industry, yet there has been considerable consolidation of the already existing enterprises. Toward the end of the year a business of great importance for the Roumanian petroleum industry was concluded—the amalgamation of the Moreni properties, of the Regatul Roman Co., and of the Astra Co., into a new company, under the title of the Astra Romana, with a capital of 30,000,000 francs.

The formation of this amalgamated company means the establishment on an extensive scale on the Roumanian market of the great Dutch company Koninklyke, which plays such an important part in the petroleum commerce of the world, being as it is, apart from the Standard Oil Co., the most powerful petroleum trade organisation in the world, and at the same time possessing enormous financial resources.

In addition to the conclusion of this very important business we have to note the creation of a few small companies and some increases of the capitals of some of the older concerns. Other enterprises, which, owing to various circumstances, have in the past but very slowly progressed, were during the year put on a healthier basis. Thus, from the financial point of view, the Roumanian petroleum industry seems to have made during the past year considerable progress in the way of consolidation, and acquired new possibilities of continuous development in the future.

An important question which has for a long time been occupying the attention of industrial and political circles has at last found its solution. This is the question on the State petroliferous properties. The law of the late Minister of Industry decided the question of adjudication of all the State properties recognised as petroliferous, and, first of all, of the Moreni properties which will be put to auction during 1910. The law of 1909 makes provision that all the properties shall be divided into three portions. Of these one shall be reserved for the State, another portion shall be sub-let to already existing firms occupied with petroleum exploitation, and a third portion left for free competition.

As regards the petroleum commerce, the year 1909 brought forward many difficulties, as much because of the great competition in the exterior markets as well as because of the competition on the interior market. Although it is quite evident that the Roumanian industry to be enabled to exist abroad, must act in common accord at least in the country itself, in view of obtaining remunerative prices for its products, still the interior market as regards petroleum products, did not shew, during 1909, anything but the most bitter competition.

During the year repeated efforts were made to bring an *entente* between the refiners, but with no result, and it was only toward the end of the year that the negotiations resulted in bringing agreement among various large companies, and there is now every hope that the beginning of the present year will see the realisation of a solid *entente*, which is of a very vital importance for the industry, inasmuch as it will stop the pernicious depreciation of petroleum products.

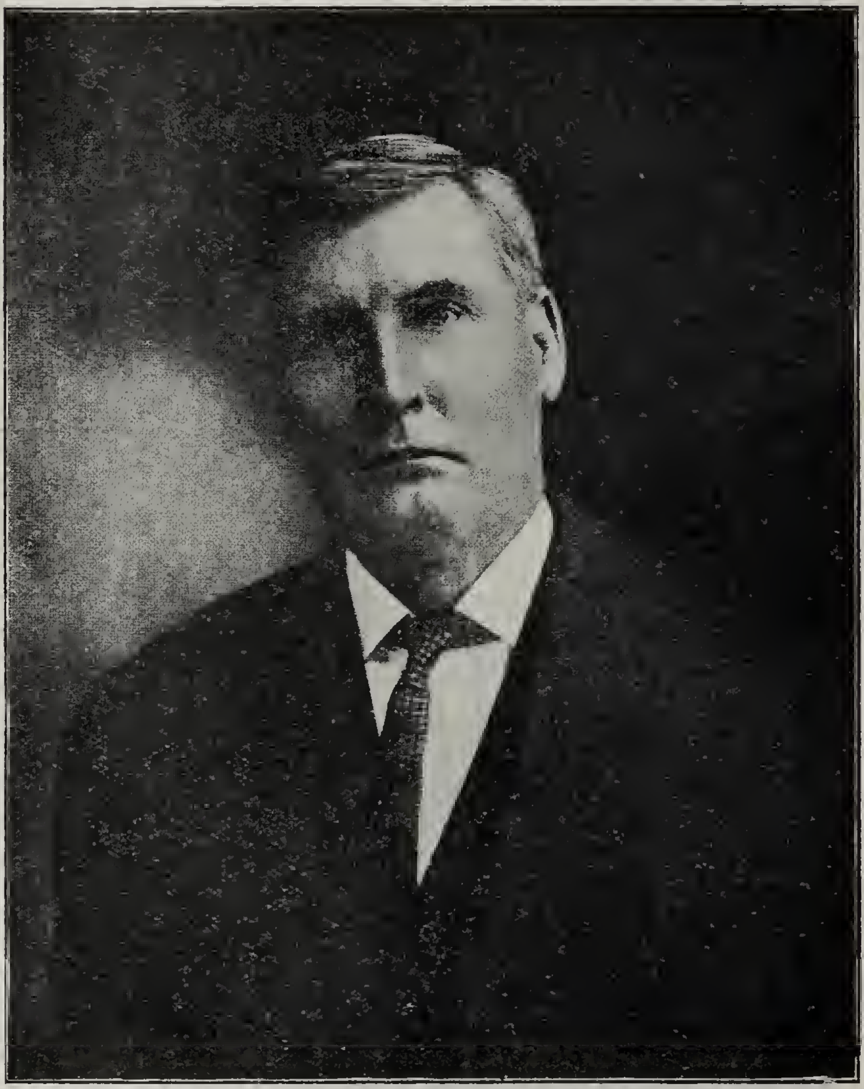
Abroad, where the competition of the Americans and the Galicians in regard to benzine and kerosene has reduced the prices to a minimum, there are now appearing various symptoms of friendly working, and there is every reason to believe that the Roumanian petroleum industry will have its part in these *ententes*. Thus the future of the petroleum exports to the European markets presents itself under considerably more favourable conditions than previously. At the same time the Roumanian exports have found a good opening in the East, and larger and larger quantities of Roumanian products are now sold there at satisfactory prices.

It follows, therefore, that the year just opened presents to the Roumanian petroleum industry very good prospects. The production is in a state of continuous increase; the weak enterprises have been or are being consolidated, new rich fields are being opened for exploitation, the interior market is on the point of being deprived of the unfavourable effects of a ruinous competition, the exterior markets are being consolidated by various international *ententes*; in the East there is every hope of Roumanian products taking a solid footing, and as regards the investment of new capital in the petroleum industry, there is now noticeable a strong and decidedly favourable movement in all interested circles.

DEATH OF PROF. J. OWEN OF CALIFORNIA.

We regret to record the decease of Prof. Josiah Owen, one of the most well known and most highly respected geological experts of California.

Almost from the discovery of the petroleum deposits in California, Prof. Owen was in charge of the geological branch of the Southern Pacific Railroad's work in that coast, and probably no man was more acquainted with the formations of oil and coal than he. He located many wells, and it was by following out his advice that the K.T. and O. Co. was so successful.



The photograph which we herewith reproduce of the dead geologist is reproduced from our contemporary—the *Oil Industry*.

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THE SUGGESTED NEW ROUMANIAN LAW.

IMPORTANT MEMORANDUM TO THE GOVERNMENT.

Our readers will recollect that some weeks ago we referred to the proposed new Roumanian law, which, if carried into effect, would render it necessary that every foreign company operating in the Roumanian oil fields would have to give an undertaking that two-thirds of the administration and employes shall be Roumanian subjects.

Recognising, as did Dr. Dvorkovitz, that such a piece of legislation would do a vast amount of harm to the petroleum industry of that country by preventing the influx of foreign capital on the one hand, and on the other being an inducement for the foreign companies already in the fields to quit Roumania, he, without delay, approached one of the most influential gentlemen in European oil circles, and as a result of this interview, the following memorandum has been prepared and submitted to the various representatives of the Roumanian Government as well as circulated throughout the Roumanian press. This important memorandum reads:—

The action of the Roumanian Government in trying to force foreign capital to employ for the greater part Roumanian labour of every description seems illogical.

An investor, of whatever nationality he may be, has only one object, and that is to get the best and safest returns for his money. He does not go to a country for philanthropical purposes, but is risking his money; and seeing that the money is his property, it should be left entirely to him to state how and by whom this investment shall be managed. For any country, it cannot be but beneficial that foreign capital is invested in an industry, and the more money is invested in that country, the more the resources of such a country are opened up to the direct, indirect, and future benefit of that country.

Apart from the question of labour, the advantages are manifold. Taking the more material side of the question, there are, whether foreign labour is employed or not, the salaries whether of such foreigners or of natives which are spent in that country, and the greater part of such salaries are being thus ultimately pocketed by the inhabitants of that country. I do not even speak of the receipts by that country in harbour dues, import duties, receipts from postages and telegrams, which have to be sent by everybody (and the latter certainly in a greater degree by foreign companies), but apart from this—even taking a narrow-minded view and objecting to an influx of foreigners into the country, which view can only be based on jealousy that a foreigner instead of a native of the country should receive a high salary. For the country itself, it does not matter at all who receives such salary, because the foreigner has to spend in such a country at least as much and generally (being a little more in want of comforts when his daily work is over) more than the native.

There is, however, a much greater advantage for a country to see an influx of able, foreign mechanics, administrators, etc., because there is no doubt about it that in the offices and the fields and in the refineries, a certain number of natives must always be employed, and unless they give themselves a certificate of stupidity, they must gain from the experience and the knowledge of these foreigners.

Peter the Great—although he lived hundreds of years ago in an age not so enlightened as the present—saw this quite well, and even enticed and did all he could to persuade foreigners to come to Russia, and a great many of the industries of Russia have been made possible by the farsightedness of this clever monarch. How, therefore, any country can even for a moment consider that by preventing the influx of highly intelligent foreign labour, and as a consequence stopping also the influx of foreign capital, they are benefiting the country is a thing no commercial man, trained in any of the big commercial centres of Europe, will be able to understand. It seems, as said above, absolutely illogical. One is almost forced to assume that the only reason why such an idea has cropped up and appears to be pursued can only have jealousy as its foundation.

Assuming even that a foreign company would really make an exception to the rule and make large profits in Roumania, is that an advantage to the country? or does anybody believe that if there were no foreign company which would pay good dividends to its shareholders, any further large capital would be invested? It is only in such countries, where one or more companies make large profits, that others are induced—not to say enticed—to invest bigger and bigger sums of money, and there cannot be two opinions about it, but that such investments help to develop this country; and it is only in a large development of a country where more and more money is being spent, that the native population becomes better and better educated (because one may assume that a country which receives large receipts by the development, spends more and more money on the education of its inhabitants), and that in the course of time the native population will, as before mentioned, by more expensive education and schooling—by the influx of foreigners—be able to take the place of such foreigners. This will be an absolutely natural result, as it has been in every country, but to force this to happen prematurely by legislature will only have the result of retarding the progress of the population.

One may ask the question whether Galicia, for instance, who now takes such a prominent place amongst the petroleum producing fields, would have occupied this position to-day if it had not been for the highly intelligetn Canadians, who, as drillers and otherwise, have come into that country. One could also point to several industries in foreign countries which are to-day giving an enormous employment in many countries, and which have originated entirely from the stupid edict of Nantes which drove so many intelligent Frenchmen under Louis XIV. from France, and the other countries in Europe who received such refugees with open arms reaped the benefit. It seems almost as if Roumania wants to prepare the way for a Roumanian "edict of Bucarest."

NOTES FROM THE OIL FIELDS.

RUSSIAN.

New Pipe Line on Tcheleken Island.—Mr. Gadjinsky has obtained permission to lay two pipe lines of a length of 10 versts. This will make 30 versts of pipe line on the properties of Mr. Gadjinsky.

Tax on Exploration.—The Minister of the Army has fixed the rate of duties to be paid to the Kubinski Military Administration for petroleum explorations during the current year at 5 roubles for each dessatine of ground exploited.

The Maikop Boom.—The boom in Maikop oil lands still continues, and land prices are daily increasing. During December 200 applications for final claims were made in the locality of Apscheron station in the Kuban district.

Reclaiming Bebe-Aibat Bay.—All preliminary works for filling in the Bebe-Aibat Bay are now completed. All the necessary materials are on the spot, and a special railway has been laid to bring enormous quantities of stone to the Bay. The actual filling of the Bay will commence in June next, and be completed in about six years' time.

Maikop Production.—The estimated total production upon the Baku Black Sea Co.'s properties in the Kuban district from the commencement of exploitation until the end of 1909 amounted to 1,567,975 poods; that on the properties of Selitrennikoff to 37,410 poods. These figures do not include the production by the several pouters, of which details have appeared in the Review.

The Uchta Oil Field.—A Government Geological Committee are at present studying the details of a geological research made last summer by Prof. Yakovleff. The studies will not be completed for many months to come. The Minister of Commerce has devoted 95,000 roubles in order to put down several trial borings of shallow depth in order to determine the productivity of the first stratum

The Situation at Tcheleken.—All works connected with petroleum on Tcheleken Island shew great activity. Mr. Gadjinsky is erecting several earthen reservoirs of a capacity of 7,000,000 to 8,000,000 poods. Large orders for boring have been given to some contractors, who have already started boring in several places. The production is considerably increasing, and in many spots petroleum is beginning to spout in fairly large quantities. Steamship companies have now organised direct lines from Baku to the island.

AMERICAN.

Lull in Illinois Operations.—There is at present a lull in the operations throughout the Illinois fields, the like of which has not been known for three or four years.

The Palmer Gusher.—The Palmer gusher is still flowing at approximately 1,500 barrels per day, this production having now been kept up steadily for several months.

The Advance of Liquid Fuel.—The Metropolitan Steamship Co., whose vessels ply between New York and Boston, are going over to liquid fuel for the coming season.

The Union Oil Company.—As shewing the confidence which the Union Oil Co. has in the Kern county fields, it has recently ordered casing and pipes sufficient for completing 60 wells.

The Silver Tip Gusher.—The Silver Tip gusher in the Coalinga field is now flowing at the rate of 700 barrels daily, it being the general belief that it will remain at this figure for a long time to come.

Is It Another Mexican Oil District?—From Mexico City comes the news that a new oil field has been discovered at Topilo, about 30 miles away from Tampico. The trial well is reported to be flowing at 1,000 barrels per day.

Reported Important Canadian Discovery.—It is stated that what is believed to be extensive deposits of oil sand have been discovered about 40 miles distant from Vancouver, B.C. The sand lies only a few feet below the surface.

San Francisco Shipments.—The shipments of petroleum products from San Francisco during 1909 amounted to about 95,000,000 gallons—an insignificant amount seeing that the crude oil production for the year was nearly 60,000,000 barrels.

A Deep Test Abandoned in Mexico.—A well at Tamijie, Mexico, known as the Pearson No. 1, after having been drilled to a depth of over 3,200 feet has been abandoned, though it is stated that there were showings of oil at several spots during drilling operations.

Port Arthur Shipments.—The shipments of crude and refined petroleum products from Port Arthur during the first half of January amounted to 350,000 barrels of refined products, and 170,000 barrels of crude oil. Of this quantity two cargoes of the refined products were shipped to England by the Gulf Refining Co.

An Important Move in California.—Several gentlemen prominently associated with Californian oil circles have lately formed a company—known as the Petroleum Investment Co. for the purpose of financing companies desirous of engaging in Californian oil field operations. The company is capitalised with 2,500 shares, each of a value of $100.

New Californian Oil Companies.—Among the recent company registrations for operations in the Californian oil fields are included the following:—Cheney-Stimson Oil Co., capital $100,000; Rock Island Co., capital $500,000; Treasure Oil Reality Co., capital $2,000,000; South Kern Oil Co., capital $100,000; Sitting Bull Oil Co., capital $1,000,000; Otav Oil Co., capital $100,000; and the Lucky Strike Oil Co., $500,000.

ROUMANIAN.

The Ill-Fated Aurora Company.—The negotiations undertaken some time ago in view of re-establishing the Astra on a healthy basis have again been suspended, but there is every hope of their speedy renewal and definite conclusion.

Moreni Production.—The production on this field continues to be very good, and amounts to about 1,400 to 1,500 tons per day. The Regatul Roman shews a daily production of 800 to 850 tons per day. One well alone yields from 500 to 600 tons per day.

The *Entente* of Refiners.—According to latest information, the negotiations on the subject of the *entente* between the refiners are on the point of being definitely concluded. As soon as all the interested parties are in Bucarest the *entente* will become an established fact.

Activity at Poiana.—The German-Roumanian Commercial Syndicate is very active in this locality. The well at Poiana is now bored to a depth of 430 metres, and shews great activity in erupting oil and gas. In the Sorescu and Cerisianu fields ten exploration wells are on the way of being completed. Oil has been struck in the well No. 5 at Vulkanesti.

The New "Astra-Romana."—All the preliminaries for the constitution of this new company are now completed. The Regatul Roman has already concluded the inventory of all its properties at Moreni. The capital of the new company will be 29,400,000 francs, of which 5,000,000 francs are paid in cash by the Dutch capitalists, the remainder consisting of the petroliferous properties of the Regatul Roman, and of the Astra at Moreni, and of the refinery of the latter company at Ploesti.

An Explosion at Campina.—On 21st of January, well 148 of the Steaua Romano at Bucca, in Campina, made a tremendous explosion. The effects of which have been felt at a great distance. At the moment the well was in eruption and caught fire from the motor. A driller was fatally burned and a workman was seriously injured. The fire after 2 hours extinguished.

THE OIL SHALES OF CANADA.

By PROF. BASKERVILLE.

The following interesting paper upon the "Oil Shales of Canada," from the pen of Mr. Charles Baskerville, Ph.D., appears in the current issue of the *Oil, Paint and Drug Reporter*. Strange to say, the paper was read before the organic chemistry section of the International Congress of Applied Chemistry last summer, but at the time it was impossible to get even a *resumé* of the important paper. The difficulty that there has been in securing it during the intervening months is clear from the fact that it only appears in the current issue of our excellent contemporary. The article is as under:—

The use of shale as a source of oil by destructive distillation is well-known in Scotland, France, Germany, and Australia, and requires no explanation to this congress. In America, however, this fact is not so well recognised, although Gesner claimed to have been the first to produce illuminating oil from bituminous materials on that continent. At public lectures delivered in Prince Edward's Island in August, 1846, he burned in lamps the oil obtained by distilling coal. Patents granted to Gesner nine years later passed into the hands of the North American Kerosene Gaslight Co., who manufactured the oil at their works at Newtown Creek, Long Island, and sold it under the name of "kerosene oil." The agents of this company encountered considerable difficulty in selling their product.

In 1853 the United States Chemical Manufacturing Co. began working coal tar for the manufacture of lubricating oil at Waltham, Mass., and in 1857 the Downer Kerosene Oil Co. first made mineral oils from Albert coal mined in New Brunswick, Canada. The works of Downer, in Boston, were erected at a cost of half-a-million dollars, and at Portland, Me., he also erected a smaller works for distilling imported coal. About this time the New Bedford Co., of New Bedford, Mass., commenced the distillation of Boghead coal, imported from Scotland, but later substituted domestic Breckenridge coal and West Virginia coal for the imported material. In 1859 six plants were erected by various companies near Pittsburgh, Pa., and one of these (the Lucesco Co.), had a distilling capacity of 6,000 gallons of crude oil per day. Many of the companies in operation worked under license from the Young Co. of Scotland.

In 1860 there were nearly 60 coal oil companies in existence in the United States, many of which were of small capacity. Most of them were not more than fairly started when the discovery of petroleum paralysed the industry, and the owners were threatened with considerable loss, from which some were rescued by converting their oil works into petroleum refineries, which was accomplished with little outlay of time or money.

The following minerals were used for the production of crude oil in the United States:—

Mineral.	Yield of Crude Oil. (in gallons)
Albert coal (Albertite)	110
Asphalt Rock, New Brunswick	64
Pictou shale, Nova Scotia	47
Breckenridge cannel coal	130
Erie Railroad coal	47
Newburg coal	72
Falling Rock coal	80
Pittsburg coal	49
Kanawha coal	71
Elk River coal	60
Cannelton coal	86
Coshocton coal	74
Ouachita brown coal	68
Ouachita bitumen	64
Ritchie county bitumen (Grahamite)	170

During the year 1859 the North American Kerosene Gaslight Co. imported upward of 20,000 tons of Boghead coal for the supply of their works at Newtown Creek, Long Island, at an average cost of $18 per ton. It was found that a ton of this mineral run in common retorts yielded 120 gallons of crude oil per ton, which gave 65 gallons of lamp oil, seven gallons of paraffin oil and 12 pounds of paraffin wax. The cost of the oil was estimated at 63 cents per gallon.

The bituminous shales of New Brunswick, or the "Albert Shale," first came into prominence through the discovery at the Albert mines of the peculiar mineral albertite. The discovery of albertite was followed by a contention as to its nature, as this involved its ownership. The testimony offered in the trial was of the most discordant character, and it was adjudged that the material was of the nature of coal. This supposition was soon abandoned, however, and the material was regarded as a highly altered pitch or bitumen. Two analyses of albertite are given here:—

	Wetherill. Per cent.	Gesner. Per cent.
Carbon	86·307	85·400
Hydrogen	8·962	9·200
Nitrogen	2·930	3·060
Sulphur	Traces.	A trace.
Oxygen	1·971	2·220
Ash	0·100	0 120
Totals	100·000	100 000

Albertite yielded 110 gallons of crude oil per ton, of which 70 per cent. was made into lamp oil, and 10 per cent. into heavy oil and paraffin. As might be expected from its low sulphur content, the oils produced from Albertite were almost without offensive odour, and the burning oil was admirably adapted for burning in paraffin lamps. Albertite was also used for gas enriching, and, to a limited extent, in the preparation of cements. Between the years 1863 and 1874, 154,800 tons of this mineral were mined, and it is estimated that in all over 200,000 tons were yielded by the veins in Albert county.

The high price obtained—from $15 to $20 per ton—rendered Albertite one of the mineral assets of New Brunswick. The large vein has not been entirely worked out, and several smaller veins have been proved.

The "black band" shales of New Brunswick were distilled at the Caledonia works in Albert, and yielded 63 gallons of crude oil per ton, while poorer beds on the Memramcook river, in Westmorland county, were found to give only 37 gallons. Numerous leases were taken out in 1865 for operations on the bituminous shales of New Brunswick, and a company in Westmorland county erected 100 retorts with the design of subjecting 100 tons per day to distillation. These shales produced 7,500 cubic feet of gas per ton (about one-half of the quantity yielded by Albertite) and 1,230 tons, valued at $3,075, were exported in 1865.

The Utica shale was distilled in the township of Collingwood, Ontario, in 1859, as a source of oil, and it was learned that similar shales occur in the Devonian formation in Basanquet, Lampton county, Ontario. In

1871, Mr. D. C. Glen exhibited samples of these shales in England.

Over 2,000 tons of oil-coal were raised near Pictou, Nova Scotia in 1859, mostly from Fraser's mine. The following were found to be the yields from the oil-coals worked in Nova Scotia at this time:—

	Gallons of Crude Oil per ton.
McLennan's Brook	40
Coal Brook	53
McCullock's Brook	77

This oil-coal has been described by H. How.

Oil shale has been found more recently at MacAdam's Lake, on the north side of East Bay, Cape Breton, Nova Scotia. This shale yields 15 to 20 gallons of crude oil per ton.

Near Deer Lake, in the east of Newfoundland, occurs a dark-grey shale, which is highly bituminous in parts. This deposit has never been worked to any extent.

The large body of peculiar black, brown and grey shales which occur in Albert and Westmorland counties, New Brunswick, have long been known under the name of "Albert shale." The mode of occurrence of these heavy oil shales is quite distinct from that of albertite. In the case of the latter the mineral occurs in the form of true veins, which sometimes follow the lines of stratification of the inclosing shales, but which also frequently traverse them at well-defined angles. The oil shales, however, occur as true inter-stratified beds in the bituminous shale series. As to the geological position of the shales as a whole, it may be remarked that somewhat diverse opinions have been held from time to time by different geologists. In the early days of the investigation of these shales, it was supposed they represented an integral part of the lower carboniferous. This conclusion was reached from the presence in certain of the bands of shale of the remains of fossil fishes and plants, which were then supposed to have a lower carboniferous aspect and to definitely fix their horizon. From investigations made in 1876, however, it was found that the shales should stratigraphically be assigned to a lower horizon or be regarded as of Devonian age, owing to their nonconformability to the true lower carboniferous sediments.

The principal areas most readily accessible at the present time are at Taylorville, Albert mines and Baltimore. In all these localities the outcrops have been examined. A detailed description of these would be out of place in this paper, but suffice it to say that in the Taylorville district, although the area of shales exposed is limited, according to the report of the Canadian Department of Mines, four beds of high quality of shale with a total thickness of 11 feet, have been uncovered. In the Albert Mines district six bands for a quarter-of-a-mile along the stream with a total thickness of about 26 feet, have been exposed. The shafts of the Albert mines were sunk to a depth of 1,500 feet. They cut numerous beds of oil shale and, in fact, work was discontinued in such deposits. What is known as the Baltimore shales are found for several miles along the north flank of the Caledonia Mountains, going west from Albert Mines, in five bands, with a total thickness of over 22 feet. These beds have been explored by two diamond drills and one churn drill through a depth of 900 feet. They were encountered at intervals throughout the borings.

Outcrops of several other beds of this shale have been observed near Rosevale post office, and it is considered likely that at least two other beds may be found in this area. In fact, a band with a thickness not far from 15 feet, not opened up, has been measured along the bank of the brook, which cuts it. A "grey shale," with an exposed thickness of about four feet, is found three-quarters of a mile to the west of the above. And four miles beyond three other bands of brownish shales, the thickness of one being five feet, and all yielding oil, are found. Portions of the original bed of Albertite remain in certain parts of the oil workings, and recent investigations have disclosed the presence of other veins of Albertite. The dumps of shale aggregating over 100,000 tons, contain large quantities of the mineral. It will be thus observed that the quantity of shale which yields oil on distillation is enormous, if not beyond measure.

A preliminary examination was conducted with a view of ascertaining the laboratory yield of oil, and the products from the crude oil obtained from a sample of shale. This shale, which was obtained from the Baltimore locality, had the following physical properties:—Lustre, moderate; fracture, irregular and without natural line of cleavage; cross fracture, angular, partly inclining to conchoidal, and a specific gravity of 1·44. It was solid and compact. It burned with a dense smoky flame, when ignited with a match. The yield of gas saturated with tarry matters was large when a sample was heated to dull redness in a tube closed at one end.

The average composition of the shale was as follows:

	Per cent.
Moisture	0·35
Volatile matter..	44·77
Fixed carbon	5·95
Ash (phosphoric acid, 0·3 per cent.; trace of chromium; no variadium; light brown colour)	48·93
	100·00
Total sulphur	1·43
Sulphur in coke	0·20
Nitrogen	1·96

Some difficulty was experienced in selecting a suitable laboratory retort for obtaining the crude oil. Finally a cast iron retort in the form of a cylinder, 24 inches long and four inches in diameter was adopted. This retort was closed at both ends by removable caps, and at one end a three-quarter inch pipe was inserted for leading the vapours to a coil condenser, to which were attached two supplementary glass condensers. The retort was heated in a furnace to a low red heat. No difficulty was experienced in condensing the vapours evolved, as all the condensers were kept packed in ice and the distillation was allowed to proceed slowly. The distillation was made repeatedly with five-pound charges. Run-of-mine materials gave 55 gallons per ton (2,000 pounds) of crude oil, greenish black in colour and somewhat tarry. It had a specific gravity of 0·93. The residue, or spent shale, had the appearance of burned coke. The oil "refined" in the laboratory by variations of the Tervet method gave:—

	Per Cent.		Gallons per tons.
Naphtha (0·72)	9·09	..	6·9
Light oil (0·79)	16·57	..	12·0
Heavy oil (0·916)	14·00	..	7·8
			Pounds.
Paraffin	7·54	..	35
Total yield of products ..	47·20	..	—
Loss	52·80	..	280

(*To be concluded.*)

AMERICAN PETROLEUM EXPORTS DURING 1909.

OFFICIAL FIGURES OF SHIPMENTS FROM THE VARIOUS PORTS.

The following table of the exports of American petroleum products during 1909 is taken from the official figures which have just been issued dealing with America's export trade during the past calendar year. Our readers will recollect that each month we publish a table shewing the monthly shipments abroad (the one for December appearing upon the next column), and the idea of publishing the various totals for the year is that easy comparisons may be made as to the trend of exports from the various ports.

	1909. Quantities. Gallons.	1908. Quantities. Gallons.
Crude—		
Baltimore	47	—
Boston and Charlestown	—	175,490
New York	35,361,793	36,547,123
Philadelphia	10,907,686	25,230,944
Galveston	—	51,035
Sabine	53,012,084	23,748,954
San Francisco	44,917,441	13,693,400
Totals	144,199,051	99,446,946
Total value for 1908		$4,960,874
,, ,, ,, 1909		$5,208,860
Naphthas—		
Baltimore	18,434	32,425
Boston and Charlestown	43,005	47,516
New York	37,712,821	17,750,261
Philadelphia	15,985,705	16,897,562
Galveston	6,100	250
Sabine	3,695,780	1,472,970
San Francisco	93,216	91,434
Totals	57,555,061	36,292,418
Total value for 1908		$3,809,559
,, ,, ,, 1909		$4,814,498
Illuminating—		
Baltimore	8,704,224	11,271,567
Boston and Charlestown	175,405	196,722
New York	616,183,294	646,872,094
Philedelphia	302 795,972	339,507,776
Galveston	13,510	50,106
Sabine	60,584,865	52,988,531
San Francisco	49,293,182	69,751,619
Totals	1,037,750,452	1,120,638,415
Total value for 1908		$75,382,282
,, ,, ,, 1909		$67,204,330
Lubricating—		
Baltimore	5,040,026	4,440,400
Boston and Charlestown	217,863	225,499
New York	99,517,999	94,612,863
Philadelphia	48,475,280	43,698,080
Galveston	511,450	217,939
Sabine	2,849,277	1,038,261
San Francisco	475,359	379,905
Totals	157,087,254	144,612,947
Total value for 1908		$18,462,208
,, ,, ,, 1909		$19,095,403
Residuum—		
Baltimore	5,896,545	8,434,704
Boston and Charlestown	424,967	644,832
New York	2,965,411	1,682,976
Philadelphia	34,512,290	34,663,273
Sabine	54,308,726	28,359,769
San Francisco	34,381	44,231
Totals	98,142,230	73,829,785
Total value for 1908		$2,666,680
,, ,, ,, 1909		$3,425,802
Total Mineral Oils—		
Baltimore	19,659,276	24,179,096
Boston and Charlestown	861,240	1,290,059
New York	791,341,318	797,465,317
Philadelphia	412,676,933	459,997,635
Galveston	531,060	319,330
Sabine	174,450,732	107,608,485
San Francisco	94,813,579	83,960,589
Totals	1,494,734,138	1,474,820,511
Total value for 1908		$105,281,603
,, ,, ,, 1909		$99,748,893

AMERICAN EXPORTS FOR DECEMBER.

OFFICIAL STATISTICS.

According to the official publication of the Washington Bureau cf Statistics, the exports of petroleum from America from the various ports during December were as under:—

	1909. Quantities. Gallons.	1908. Quantities. Gallons.
Crude—		
Baltimore	—	—
Boston and Charlestown	—	—
New York	2,368,021	946,062
Philadelphia	302,000	1,778,314
Galveston and Sabine	3,520,572	3,898,237
San Francisco	4,746,000	3,613,100
Totals	10,936,593	10,235,713
Total value for the month, 1908		$376,299
,, ,, ,, 1909		$327,716
Naphthas—		
Baltimore	—	5,500
Boston and Charlestown	—	440
New York	1,915,851	553,061
Philadelphia	337,435	2,559,076
Galveston and Sabine	1,119,932	—
San Francisco	8,624	1,460
Totals	3,381,842	3,119,537
Total value for the month, 1908		$302,833
,, ,, ,, 1909		$308,546
Illuminating—		
Baltimore	13,330	624,867
Boston and Charlestown	2,773	6,350
New York	45,650,924	62,318,885
Philadelphia	25,607,873	17,479,170
Galveston and Sabine	4,759,923	4,220,920
San Francisco	2,123,991	3.801,315
Totals	78,158,814	88,451,507
Total value for the month, 1908		$5,629,805
,, ,, ,, 1909		$5,053,626
Lubricating—		
Baltimore	328,350	316,800
Boston and Charlestown	8,247	30,142
New York	8,498,697	7,880,976
Philadelphia	5,745,180	3,675,416
Galveston and Sabine	114,958	11,819
San Francisco	29,208	33,161
Totals	14,724,640	11,948,314
Total value for the month, 1908		$1,551,697
,, ,, ,, 1909		$1,820,152
Residuum—		
Baltimore	—	925,118
Boston and Charlestown	—	61,300
New York	34,094	8,800
Philadelphia	4,708,927	6,117,781
Galveston and Sabine	5,707,970	32,130
San Francisco	—	5,845
Totals	10,450,991	7,150,974
Total value for the month, 1908		$272,979
,, ,, ,, 1909		$377,240
Total Mineral Oils—		
Baltimore	341,680	1,872,285
Boston and Charlestown	71,020	98,232
New York	58,467,587	71,707,784
Philadelphia	36,701,415	31,609,757
Galveston and Sabine	15,223,355	8,163,106
San Francisco	6,907,823	7,454,881
Totals	117,652,880	120,906,045
Total value for the month, 1908		$8,133,613
,, ,, ,, 1909		$7,887,280

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PETROLEUM AND GAS IN CANADA.

A White Paper issued by the Canadian Department of Mines on the Production of Natural Gas and Petroleum in Canada during 1907 and 1908 shews that in the former year natural gas was produced in the provinces of Ontario, Alberta and Quebec, and in the two first-named provinces for 1908. The production is considerably on the increase, its value having advanced in 1907 from $583,000 to $815,000, and in 1908 to $1,013,000. Of the total for 1908 the Welland field contributed about 31 per cent., the Haldimand field 51 per cent., the Essex and Kent fields 11 per cent., and the province of Alberta about 7 per cent.

The province of Ontario was responsible for the total production of oil in Canada during both 1907 and 1908. In 1904 an Act was passed by the Dominion Government providing for the payment of a bounty of 1½ cents per gallon on crude petroleum produced from the wells in Canada, which bounty gives as accurate a basis as is available for a reliable statement of the annual production. In 1908 the total bounty paid was $277,193, representing a quantity of 527,987 barrels of 35 gallons each of crude petroleum, valued at $747,102. The corresponding output for 1907 was 788,872 barrels, value $1,057,088. In the fiscal year ended 30th March, 1908, the imports of crude petroleum—as shewn by the Customs reports—amounted to nearly 25,000,000 gallons.

In 1908 the Albert Oilite and Cannel Coal Co., Ltd., of New York, took up very actively the question of distillation of oil from the oil shale deposits at Baltimore, in Albert county, New Brunswick, and 45 tons of oil shales were sent to Glasgow, Scotland, for the purpose of making a commercial test in the works of the Pumpherston Oil Co. The preliminary report on these tests was published in the report of the Mines Branch, Department of Mines, for 1908. The results were very satisfactory, as the average yield per ton of shale was 40·09 gallons of crude oil and 76·94 pounds of sulphate of ammonia. This compares very favourably, concludes the report, with the shales which are worked so extensively in Scotland, the yield of which rarely exceeds 25 to 30 gallons of crude oil, and the outlook for the establishment of an oil shale industry in Canada is very promising.

◆

FORTHCOMING EXHIBITION OF MARINE OIL ENGINES.

It will be of interest to engineers and others who have followed the development of the oil engine for marine purposes to know that it is intended to hold an exhibition of this class of motor at Great Yarmouth in the autumn of this year, from October 29th to November 12th. This time has been chosen because it coincides with the busiest period of the fishing season at that port, as there are then some 2,000 fishing boats in the neighbourhood; at the same time there are about 1,000 boats fishing off Lowestoft. During recent years great changes have taken place in the conditions under which the Scottish sailing boats work, the introduction of the steam drifter having seriously affected the owners of boats depending on wind alone for their propulsion. The steam drifters have, however, increased to such an extent that the competition between them has reduced their profits to a very low figure, which has once more enabled the sailing boats to work with success. The cause of this has been the introduction of oil engines on board these latter boats. A steam drifter costs about £2,000, and an ordinary first-class sailing boat for fishing purposes from about £500 to £600, and one of these latter can be fitted with a 60-horse power oil engine for about £700; so that the initial cost is considerably below that of the steam drifter, and the speed obtained is nearly the same. It is stated that there is now scarcely a harbour from Eyemouth to Lerwick where examples of these motor fishing boats is not to be found, and the number of harbours on the East Coast of Scotland having one or more exceeds 150. During the recent Yarmouth herring season more than 50 Scottish fishing boats were present. The oil engine has also found an application on the English canals.

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Servian	**6,700**	**Terek**	**5,200**	**Rock Light**	**4,100**
Carpathian	**6.700**	**Balakani**	**5,200**	**Lux**	**2,900**
Roumanian	**6,700**	**Oriflamme**	**5,200**		

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LATEST QUOTATIONS OF PETROLEUM SHARES.

ENGLISH COMPANIES.

This list is restricted to companies who have paid dividends or who are producers.

Company.	Capital Paid Up.	Value of Shares.	Latest Prices.
Assam Oil	£310,000	£1	13/0-14/0
Bibi-Eybat Petroleum Co. ..	£380,000	£1	4/0-5/0
Californian Oilfields	£400,000	£1	5⅜-5½
Commonwealth Oil Co. ..	£500,000 Pref.	£1	$\frac{9}{16}$-$\frac{11}{16}$
,, ,, ..	£225,000 Def.	£1	$\frac{9}{16}$-$\frac{11}{16}$
Lobitos Oilfields, Ltd. (£1) ..	£360,000	£1	27/0-28/0
Pacific Oilfields, Ltd. (£1) ..	£200,000	£1	22/6-23/6
Russian Pet. & Liquid Fuel ..	£500,000 6½% Pref.	£1	2/0-3/0
,, ,, ...	£600,000 Ord.	£1	1/6-2/6
Schibaieff Petroleum ..	£575,000 6% Pref.	£5	4/6-5/6
,, ,, ...	£575,000 Or l.	£1	0/3-0/9
Shell Transport & Trading ..	£2,300,000	£1	69/0-70/0
,, ,, ,, ..	£1,000,000 Pref.	£10	11¼-11½
Spies Petroleum Company ..	£465,000	10s.	19/9-20/0

RUSSIAN COMPANIES.

Company.	Nom. Value in Roubles.	Latest Quotations. Lowest Roubles.	Latest Quotations. Highest Roubles.
Baku Naphtha Co.	100	315	316
,, ,, ,, (issue of 1908) fully pd.	100	312	320
Balakhany Naphtha Co.	250	—	—
Caspian Society	1,000	4,600	4,625
Mazout Co.	250	—	—
Melikoff, A. C.	250	—	—
Mirzoeff Bros.	250	—	—
Naftalan Co.	250	—	—
Naphtha Co. "Kavkas"	250	—	50
Naphtha Trading Co., A. I. Mantacheff & Co.	250	134½	136
Neft Co.	250	—	75
Nobel Bros.	5,000	12,550	12,625
,, ,, ...	250	—	514
Rops and Co. V...	250	315	315
Russian Naphtha Co.	250	—	—
Society Mazout	250	—	400
Ter-Akopoff Co.	250	—	—
Tumaieff & Co., J. G.	250	96	—
Volga-Caspian Naphtha and Trading Co	250	—	—
,, ,, ,, (Second Issue)	250	—	—

SCOTCH COMPANIES

Supplied by Messrs. Maclean and Henderson, Stirling.

Company.	Capital Paid Up.	Value of Share.	Latest Prices.
Anglo-Persian Oil Co., Ltd., 6% Part Pref. (5s paid)	£150,000	£1	5s. 0d.
Do. 5% Deb. Stock	£600,000	£100	£95 0s. 0d.
Broxburn Oil Co., Ltd., Ord. 17/- pd	£235,000	£1	£2 0s. 0d.
Do. 6% Cum. Pref. ..	£100,000	£10	£12 3s. 9d.
Burmah Oil, Ord.	£1,100,000	£1	£4 14s. 3d.
Do. Pref.	£250,000	£1	£1 7s. 6d.
Dalmeny Oil Co., Ord. (7 paid) ..	£37,800	£8 10s	£5 0s. 0d.
Do. 5% Pref. ..	£18,900	£7	£4 12s. 0d.
Oakbank Oil Co., Ltd., Ord.	£170,000	£1	£1 16s. 0d.
Do. Pref. (£1 paid)	£100,000	£1	£1 4s. 3d.
Pumpherston Min. Oil Co., Ld., Ord. (17s. paid)	£110,500	17s.	£8 17s. 6d.
Do. 6% Cum. Pref.	£100,000	£10	£13 0s. 0d.
Tarbrax Oil Co., Ltd. Ord. (£1 pd.)	£65,000	£1	£2 7s. 3d.
Do. 6% Cum. Pref.	£40,000	£1	£1 4s. 6d.
Young's Paraffin Co., Ltd., Ord. ..	£452,808	£4	£3 6s. 9d.
Do. "B" Deb...	£150,000	£100	£161 0s. xd

DUTCH COMPANIES.

Company.			Latest Quotations (per cent.)
Dordtsche Petroleum Industrie My. ..	.:	Aand.	170
,, ,, ,, ..	Pref.	,,	190
Int. Roum. Petroleum Maatschappij ..	..	,,	23½
Royal Dutch Petroleum Co.	..	,,	425
Mœara Enim Petroleum Maatschappij	..	,,	196½
Oklahoma Petroleum Co.	Pref.	,,	130
,, ,, ,, ...	Ord.	,,	46
Perlak Petroleum Maatschappij ..	..	,,	138
Sumatra Palembang Petroleum Maatschappij		,,	163
Zuid Perlak Petroleum Maatschappij ..	Pref.	,,	178
Union Petroleum Co.	..	,,	88½
Bibi-Eybat Petroleum Maatschappij ..	..	,,	22½
Russian Petroleum and Liquid Fuel Co.	..	,,	11⅞
,, ,, ,,	Pref.	,,	14½
,, ,, ,,	(6% Debs.)	,,	32
Schibaieff Petroleum Co. (Ord.) ..	..	,,	7⅛
,, ,, ...	Pref.	,,	7
Shell Transport and Trading Co. ..	Ord.	,,	345½
Tulsa Petroleum Co.	..	,,	92¼

THE INDIAN PETROLEUM MARKET.

(*Crowded out of page* 109.)

Bombay, Jan. 23rd.

The petroleum market is strong. The following are the current prices of the Standard Oil Co. of New York:

		Rs.	a.	p.
Snowflake Brand, 150 deg., American	(per case)	6	4	2
White Rose, 150 deg. ,,	,,	6	4	2
Chester Brand, 76 deg. Abel	,,	4	12	2
Devoe's Brilliant	,,	4	12	2
Monkey Brand, 76 deg. Abel	,,	4	6	2
Elephant Brand, 125 deg. (bulk in tins)	(per 2 tins)	3	15	0
Elephant Brand, 125 deg. (bulk without tins) (per 8 Imperial gallons)	..	3	5	0

The following are the current prices of the Asiatic Petroleum Co., Ltd.:—

		Rs.	a.	p.
Swan Brand, bulk loose..	(per unit)	2	15	0
Swan Brand, new tins	(per pair)	3	9	0
Ship Brand, bulk loose	(per unit)	3	5	0
Ship Brand, new tins	(per pair)	3	15	0
Rising Sun Brand, bulk loose	,,	3	7	0
Rising Sun Brand, new tins	,,	4	1	0
Anchor Cases	(per case)	4	3	0
Silver Light 150 deg. cases, ...	(per case)	5	4	0

The prices of the Burma Oil Co.'s productions are as under:—

		Rs.	a.	p.
Kerosene, Victoria	(per 2 tins)	3	8	0
Kerosene, Victoria	(per 8 gallons)	2	14	0
Kerosene, Chukker	(per 2 tins)	3	15	0
Kerosene, Chukker	(per 8 gallons)	3	5	0
Burmah Wax	(per pound)	0	3	0
Burmah Candles	,,	0	5	0

PRODUCTION OF ENGLISH COMPANIES IN RUSSIA.

Baku Russian Petroleum Co., Ltd.—The production for the week ended January 22nd was 147,000 poods, or 2,370 tons. These figures are exclusive of oil produced from plots leased off.

Russian Petroleum and Liquid Fuel Co., Ltd.—The production for the week ended January 29th was 132,000 poods, or 2,128 tons; and for the week ended February 5th was 151,000 poods, or 2,435 tons.

Spies Petroleum Co., Ltd.—The production for the week ended 30th January was 313,260 poods, or about 5,053 tons. The production for the week ended February 6th was 319,930 poods, or about 5,160 tons. The total production for the year to February 6th was 1,073,500 poods, or about 17,315 tons. The total production for the corresponding period last year was 687,955 poods, or about 11,096 tons.

The European Petroleum Co., Ltd.—The production for the week ended January 30th was 104,811 poods, or 1,690 tons; and for the week ended Febuary 6th was 107,721 poods, or 1,737 tons.

◆

Mr. A. Leslie Furber, of the Oilfields of Mexico, has been elected to a seat on the board of the British Colonial Petroleum Corporation, Ltd.

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PETROLEUM REVIEW,
45, St. Mary Axe, London, E.C.
American Office: 150, Nassau Street, New York.

Saturday, February 12, 1910.

GOVERNMENTS *VERSUS* INDUSTRIES.

A WARNING TO ROUMANIA.

THERE are very few commercially important countries to-day that have not at some time or other had their respective industries almost shaken to the ground by injudicious acts on the part of their own Governments. The pages of commercial history teem with them, and the most surprising part of these legislative acts of indiscretion is that the attempt on the part of the Government was not at all vindictive, but promoted simply with a desire to assist that particular branch of commerce, which in practice it almost crippled out of existence. To-day, both in this and other countries, we see what a great diversity of opinion there exists between our legislative bodies on the one hand, and practical men of commerce on the other, over questions that, viewed in the clear light of practical experience, cannot possibly admit of the slightest misconception of fact.

The petroleum industry in many countries has patiently suffered over and over again by reason of acts of indiscretion committed by their Governments in regard to subjects which have been of the most vital importance, and to-day, just as ten years ago, these strange moves periodically appear on the horizon.

It is not many years ago that the Russian Government, acting presumably upon the advice of some mysterious yet apparently authoritative person, increased freight rates for the transport of kerosene from Baku to Batoum, thinking thereby not only to benefit themselves, but also to assist the industry. Our readers will still recollect, how that the additional tax for transport almost brought down the export of Russian kerosene to nil, and at the same time considerably assisted toward the downfall of Russian prestige upon foreign markets in regard to oil matters.

At that time we made an emphatic protest against the increased rate, and it is only now that the sad results of the Government's rash action stand out so prominently in official publications (for they shew that Russia's export trade commenced to decline concurrently with the fixing of the enhanced freight rates from Baku to Batoum) that we learn the Government is viewing with considerable favour the suggestion that the through rates shall be decreased. It may be argued that "'tis better late than never," but no amount of argument can refute the fact that Russia's export trade to-day is a living condemnation of the policy which was so unthinkingly pursued a few years ago by the Government.

Turning for a moment to America, here also we find that for several years the United States Government has publicly shewn its hostility to the welfare of the country's petroleum industry by its continuous attacks—conducted with the aid of the public purse—against the Standard Oil Company. Even the "man in the street" is familiar with the fight, and though possibly he, like the American Government, cares not what the outcome may be, those associated closely with the petroleum industry cannot but view such a struggle with grave misgivings. It is an old saying that a house divided against itself cannot stand; we would apply the same argument in this case by asking if it likewise be not an absolute fact that a country's government divided against its industries must inevitably fall?

To-day, America is feeling abroad some of the effects of this hostility at home. Its petroleum commerce overseas was expanding to a degree without parallel, and at that time the Government did its level best (we ought to say its worst) to prevent the intelligent investment of capital, and its energetic and careful application meeting with its just reward. Foreign countries have not been unmindful of that "rift within the lute" at home. France has now practically forbidden American crude oil to enter its ports, and rumour has it that more than one other European country, whose trade treaties with America shortly expire, will follow the lead made by France. These facts alone should be just cause for the American Government to stay its hand of persecution ere it be too late.

And now in that most progressive of petroleum producing countries—Roumania—we see what at first sight cannot but strike one as a determined attempt on the part of the Government to hinder commercial progress. We refer of course to the suggested new law which makes it compulsory that every foreign company operating in Roumania must have in its administration and employes two-thirds of Roumanian subjects.

Dr. Dvorkovitz, whose efforts on behalf of the Roumanian petroleum industry have met with recognition at the hands of the Roumanian Government more than once, immediately saw how this proposal would spell almost permanent ruin to the Roumanian industry, and therefore took the opportunity of placing himself in direct communication with a gentleman, whose position in the petroleum industry ranks very high, and whose close association with the Roumanian petroleum industry renders his words of warning of great weight. We hope, therefore, that the memorandum which appears upon another page of the current issue, circulated as it is being throughout the chief Government circles of Roumania, will result in the projected law being allowed to drop, in which case, there is every reason to believe the Roumanian petroleum industry will continue its prosperous career indefinitely, and that foreign capital—unfettered as it now is—will assist in no little degree toward Roumania's successful future.

Without at this stage desiring to too much labour the point, we would add that the words which fell from Lord Selbourne's lips the other day at Johannesburg have a very significant meaning in the present case. His Lordship said that "every German going to South Africa was an additional source of strength to the country." This is the true crux of the whole matter. A nation's strength does not necessarily lie in the number of its men o'war at sea or in its soldiers on land, but more in the energy with which its numerous branches of industry and commerce are developed for the common weal.

We do trust that this will be the last occasion upon which a Government whose national interests are so closely wrapped up in the development of its petroliferous territories, will attempt to place even the smallest obstacle in the path of progress, for good Government and national commercial and industrial prosperity are always synonymous.

◆

THE TIN PLATE MARKET.

Messrs. Norton, Owen & Co., of 4, Bishopsgate Street Within, London, E.C., report under date February 10th, 1910, as follows:—

Since our last report prices have further advanced, and a considerable business has been done. Oil prices are quoted as under:—

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F.o.b. Wales. Tin lining and iron hooping extra.

The Galician Petroleum Industry during 1909.

A CONCISE RETROSPECT.

The past year has most certainly been a year of great improvement in the state of the Galician oil industry. The prices for crude oil, which at the beginning of the year fell below one kronen per 100 kilogrammes (approximately 8s. per ton), steadily increased, and at the end of the year stood at over two kronen per 100 kilogrammes (16s. per ton). Of course this advance in prices was principally due to the fact that the Austrian State have been buying very large quantities of oil, and at the same time have been quite disposed to make considerable advances to the producers.

The production of crude oil in 1909 attained the figure of 215,000 waggons—2,150,000 tons — and with the completion of a great number of new wells it is continually increasing, so that there is some probability of prices again coming down. Thus the general situation with regard to the prices cannot be considered as very promising, especially as there now exists very acute competition with the American companies.

A General View of Boryslaw, Galicia.

With regard to the sales of petroleum products, the situation seems to be a little complicated. The State, having built a debenzinating factory at Drohobycz, has not come to any definite decision as to the products obtained at the factory, excepting the residuals which are to be used as fuel for the Galician railways. If the American factors, therefore, purchase these products from the State, they will naturally become masters of the situation, and will be able to dictate terms to the refiners.

In addition to this, the rise in the price of crude oil has kept the refiners from the introduction of residuals as fuel. Thus, with regard to the utilisation of petroleum products, the present trend of events suggests a retrograde movement.

The increase in the production of crude oil during the past year was particularly noticeable in the East of Galicia, especially at Tustanowice and Boryslaw. Of the total production in Galicia last year, Boryslaw and Tustanowice fields yielded 1,976,500 tons. The comparison with the production during the two preceding years, that of 1909 was as follows (in tons) :—

		1909.	1908.	1907.
Tustanowice	..	1,740,000	1,318,710	1,011,590
Boryslaw..	..	236,467	266,910	
Other Fields	..	173,533	168,382	164,384
Total	..	2,150,000	1,754,002	1,175,974

Thus the increase in production during 1909 is of about 400,000 tons in comparison with the figures for 1908, and of 1,000,000 tons in comparison with those of 1907. The production of crude oil has, therefore, doubled during the last two years.

A very important and almost vital point for the Galician petroleum industry is that of storage accommodation. In 1909 the State voted considerable sums for the construction of storage tanks. The following table shewing the monthly production of crude oil at Boryslaw and Tustanowice, the quantities sent over to the refineries, and those left in the reservoirs at Boryslaw and Tustanowice, points out at the same time the continuous increase of crude oil in storage :—

		Crude Oil Production. (In tons.)	Deliveries to the Refineries. (In tons.)	Increase in the Stocks in Storage. (In tons.)
January ..	..	155,700	96,560	59,140
February ..	..	144,480	86,710	57,770
March ..	..	174,610	116,290	58,320
April ..	..	170,210	116,900	53,310
May ..	..	158,350	131,040	27,310
June ..	..	153,800	123,740	30,060
July ..	..	160,010	132,340	27,670
August ..	..	163,250	134,130	29,120
September	..	161,060	108,090	52,970
October ..	..	157,060	136,710	20,350
November	..	188,460	122,380	66,080
December	..	161,800	132,500	29,300
Total ..	..	1,948,790	1,438,390	510,400

Thus at the end of the year the Boryslaw and Tustanowice depôts contained 510,400 tons of crude oil, more than at the end of 1908, a quantity almost equal to a half of the total production of Roumania, or a quarter of that of Galicia itself. But as at the end of 1908, there was already at the depôts a quantity of 1,050,000 tons of petroleum, the stores at the end of 1909 amounted to the enormous quantity of 1,550,000 tons.

A great number of tanks were erected during 1909, so that the increase of stocks has not led to such disastrous consequences in the fluctuation of prices as has happened before with every increase in crude oil production.

The situation with regard to the number of wells is very interesting for comparison with other oil producing countries, and can be seen from the following table. At the end of last year the number of wells at Tustanowice and Boryslaw was as follows:—

	Tustanowice.	Boryslaw.
Producing wells	97	36
Abandoned ,,	29	5
Drililng	22	—
Wells over 1,000 metres, but non-producing	99	—
Wells of less than 1,000 metres	43	3
Wells about to be drilled	—	7
Total	290	51

As regards the future of the Galician petroleum industry, the most important question is that of the conclusion of the cartel. The majority of authoritative persons plead the conclusion of a cartel. It is rumoured that the State has now taken the initiative to the realisation of such an organisation as being absolutely necessary for the development of the Galician industry.

LATEST COMPANY REGISTRATION.

MAIKOP SPIES COMPANY, LIMITED.

Registered on February 4th, with a capital of £260,000, divided into shares of 10s. each. The objects of the company are to acquire any petroleum or oil-bearing lands in Russia or elsewhere, and to adopt an agreement with Spies Petroleum Co, Ltd. The signatories are: H. G. Trew, Darenth Cottage, Chipstead, Sevenoaks; W. A. S. Andrew, Packhouse Lane, Gerrards Cross, Bucks; F. Robertson, 58, Stroud Green Road, Finsbury Park, N.; G. B. Winckworth, 1, Alexandra Road, Finsbury Park, N.; J. C. Masters, 1, Stanley Terrace, Stanley Road, S. Woodford; L. G. Head, 30, Claygate Road, W., Ealing; A. F. Thompson, 61b, Fulham Park Gardens, S.W. (one share each). Minimum subscription, 20 per cent. of shares offered to public. First directors (not less than three nor more than seven): J. A. Bryce, M.P., G. Grinnell-Milne, C. J. Palmer, M. Maresch, and E. Schaefer. 1,000 shares. £200 each per annum (chairman £300) and 5 per cent. of the profits when 12 per cent. is paid on the ordinary shares, divisible. 9, St. Helens Place, E.C.

THE ANGLO-MAIKOP CORPORATION, LTD.

Just as we go to press we have received notice of the statutory meeting of shareholders of the Anglo-Maikop Corporation, Ltd., which is to be held next Thursday in London.

The report of the directors—an eminently gratifying document—shews that the total number of ordinary shares allotted is 89,150, and deferred "B" shares, 97,828.

The list of payments of the company are particularly satisfactory, shewing as they do that the whole of the capital has been secured at an expense of slightly over £3,000, including brokerage.

LATEST NEW ZEALAND DEVELOPMENTS.

The special New Zealand Correspondent of the Review, writing from Gisborne under date of December 29th, gives several interesting details as to late petroleum developments. Speaking with reference to the Taranaki field he states that there are signs of a better feeling toward that field, due in a measure to the Government sending a geological survey out to the district. This survey is under the charge of Dr. J. M. Bell.

With reference to the Taranaki Petroleum Co., Mr. Simpson has resigned, and his position has been taken up by Mr. L. Keith, late of the Bonithon Syndicate. Work upon this company's various wells is now actively proceeding. No. 1 well is being cleaned out and recased, aud promises to turn out to be a paying proposition. No. 2 well of the same company is now being drilled deeper, and our correspondent states, "an important development may take place at any moment." The No. 3 well is being pumped, yielding about eight or nine barrels per day.

The Tarakani Oil and Freehold Co. arranged at their recent annual meeting to increase their capital and continue operations. So far, this concern has only sunk one well, but in this there were good indications for a considerable depth. The formation, however, was hard the whole of the depth drilled.

The Standard Oil Company of New Zealand (late the Hadley and Co. Syndicate) is now shewing signs of activity.

ACTIVITY IN THE BATOUM PETROLEUM EXPORT TRADE.

There are many signs that Batoum is recovering much of its old activity in regard to the export of petroleum products. During December the port was unusually busy, several tankers arriving for cargoes, while others left laden for the various markets. Russian oil now finds a fresh opening in Portugal. For instance, during December a cargo was shipped from Batoum by Messrs. Nobel Bros., consisting of 224,000 poods of kerosene. During the same month, Messrs. Mantascheff sent 220,000 poods to their case oil factory at Alexandria, while owing to the practical exclusion of American oil from France, two cargoes of Russian distillate, amounting in all to 465,000 poods, were shipped during the month.

NIGERIA BITUMEN CORPORATION, LIMITED.

The Manager reports by cable as follows:—Borehole No. 9: depth, 1,200 feet; increase, 23 feet; drilling going well at present. Borehole No. 10: depth, 383 feet; increase, 6 feet 10 inches; casing put in. Borehole No. 11: driving drive pipe (5) in order to shut out sand. Bborehole No. 12: depth, 47 feet; formation, shale, soft mixed.

ANGLO-MEXICAN OIL FIELDS, LIMITED.

The Manager reports by cable as follows:—Borehole No. 4: depth, 2,614 feet; increase, 6 feet; formation, hard grey sand rock. Under-reaming.

Messrs. CROSBY LOCKWOOD & SON beg to invite the attention of all persons interested in the Oil Industry to the following important work, which they have just published.

Demy 8vo, 384 pages, with 114 Illustrations, including 22 full-page Plates, and Tables. 15s. net.

PETROLEUM MINING . . AND . . OIL-FIELD DEVELOPMENT.

A GUIDE TO THE EXPLORATION OF PETROLEUM LANDS, AND A STUDY OF THE ENGINEERING PROBLEMS CONNECTED WITH THE WINNING OF PETROLEUM,

INCLUDING

STATISTICAL DATA OF IMPORTANT OIL-FIELDS, NOTES ON THE ORIGIN AND DISTRIBUTION OF PETROLEUM, AND A DESCRIPTION OF THE METHODS OF UTILISING OIL AND GAS FUELS,

BY

A. BEEBY THOMPSON, A.M.I.Mech.E., F.G.S.

Author of "The Oil-Fields of Russia and the Russian Petroleum Industry."

EXTRACT FROM PREFACE.

The paucity of practical books on the important subject of Petroleum Mining, which has now assumed such gigantic proportions and proved, under careful guidance, to be such a lucrative form of investment, is sufficient justification for the preparation of this volume. In it an attempt has been made to present in practical and concise form an outline of the conditions under which petroleum occurs in nature, and the main problems which have to be solved in the exploration and development of oil-fields.

The subject is introduced by a short historical account and brief mention of the present operated oil-fields, accompanied by statistical data. The subjects of origin of petroleum and its composition, characteristics, distillation, and refining are briefly described to give those interested in oil-field development an idea of those sides of the industry.

The indications of petroleum and the geological conditions under which it exists in commercial quantities are described in detail with the intention of assisting prospectors in deciding upon the value of territories where manifestations of petroleum are displayed. In the sections dealing with oil-field phenomena and the life and production of oil wells, many interesting figures drawn from various channels have been incorporated, and likewise in the pages devoted to the consideration of the life of oil-fields and the quantity of oil secreted in oil strata there will be found a large number of highly instructive figures.

In the sections of the work devoted to drilling and sources of energy on oil-fields many useful practical hints may be found, being the result of considerable personal experience in prospecting and developing new territories, where only the most crude local labour is often available and many months must elapse before any new machinery can be delivered.

The use of natural gas has been separately treated and a special chapter has been devoted to the combustion of liquid fuel.

Every endeavour has been made to maintain throughout a practical standard, and numerous examples of phenomena have been inserted to illustrate features under review and substantiate views expressed.

SUMMARY OF CONTENTS.

CHAPTER I.—Historical—Geographical Distribution of Petroleum—United States—British Empire—Russia—Dutch East Indies—Austria-Hungary—Roumania—Central America—South America—Germany—Japan—Italy—Africa—Leasing of Oil Lands.

CHAPTER II.—Geological Conditions necessary for the Formation of Petroleum—Geological Conditions affecting the Accumulation and Preservation of Petroleum—Subterranean Movements of Petroleum—Causes of Pressure—Character of Oil-bearing Strata—Area Influenced by Productive Wells and the Distance that should Separate Individual Wells—Production and Life of Oil-fields—Selection of Sites for Drilling—Oil-field Waste.

CHAPTER III.—Surface Indications of Petroleum—Evolution of Gas—Mud Volcanoes—Accumulations of Asphalt—Relationship of Salt to Petroleum—Association of Sulphur with Petroleum—Bituminous or Asphaltic Rock—Oil Shales—Native Bitumens—Detection of Oil-bearing Strata.

CHAPTER IV.—Origin of Petroleum and Natural Gas—Composition and Characteristics of Petroleum and Natural Gas—Uses of Petroleum Products—Distillation of Petroleum—Refining.

CHAPTER V.—Drilling or Boring for Petroleum and Natural Gas—Selection of a Drilling Rig—Boring Records—Cable System of Drilling—Canadian Pole Tool Systems—Russian Freefall System—Galician System—Rotary and Flush Drills—Fishing for Lost Tools—Portable Drills—Shooting or Torpedoing Wells—Contract Drilling.

CHAPTER VI.—Objects of Casing—Types of Well Casing—Casing Shoes—Casing Elevators or Clamps—Cutting and Removing Casing—Recovering Lost Casing—Repairing Damaged Casing.

CHAPTER VII.—Injurious Effect of Water in Petroleum Fields—Exclusion of Water by Casing—Packers—Cementing Process of Excluding Water.

CHAPTER VIII.—The Extraction of Petroleum from Pits—Natural Flowing Oil and Gas Wells—Methods of Inducing Artificial Flow of Oil Wells—Pumping—Baling—Air-lift Process—Compressed Air Systems—Raising Petroleum by Absorptive Endless Belt—Cleaning Oil Wells.

CHAPTER IX.—Considerations affecting the Choice of Power for Petroleum Prospecting—Considerations affecting the Choice of Power for Oil-field Development—Steam Boilers—Steam Economising Devices—Steam Engines—Oil Engines—Gas Engines and Gas Power—Electric Power.

CHAPTER X.—Petroleum Fuel—Combustion of Liquid Fuel—Effect of Impurities on Calorific Value of Petroleum—Steam Atomisation—Air Atomisation—Gas Atomisation—Pressure Burners—Construction of Liquid Fuel Furnaces.

CHAPTER XI.—Natural Gas—Collection of Natural Gas—Measurement of Flow of Gas—Combustion of Natural Gas.

For List of Plates, Specimen Illustration, and Order Form, see following page.

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[P.T.O.

THOMPSON'S "PETROLEUM MINING AND OIL-FIELD DEVELOPMENT."—(*Continued.*)

LIST OF PLATES.

Frontispiece Plate, View of Bushtenari Oil-field of Roumania.

I. View of Los Angeles Oil-Field of California.
II. View of Los Angeles Oil-Field of California (*continuation*).
III. View of Bibi-Eibat Oil-Field of Russia.
IV. Whittier Oil-Field of California.
V. Section of Oil-Bearing Strata of Cheleken.
VI. Split Nodule of Calcareous Sandstone and Sample of Baku Oil Sand.
VII. Hollow Concretionary Nodule and Iron Fragment Ejected from Mud Volcano.
VIII. Typical Oil Sands and Dolomite.
IX. Great Flowing Well in Baku Oil-Fields.
X. Group of Iron Protected Derricks and Derricks Protected by Uralite.
XI. Views in Peruvian Oil-Fields and Binagadi District of Russia.
XII. Mud Volcanoes.
XIII. Large Mud Volcano in Eruption.
XIV. Mud Volcano and Asphalt Deposit on Outskirts of Balakhany Oil-Field of Russia.
XV. Pitch Lake of Trinidad.
XVI. Characteristic Oil Shales.
XVII. Native Bitumens.
XVIII. Native Bitumens.
XIX. General View of Baku Refinery.
XX. Sinking Hand Shafts in Roumania and Russia.
XXI. Great Gusher in Baku Oil-Fields of Russia.
XXII. A Double Cylinder Drilling Engine.

SPECIMEN ILLUSTRATION.

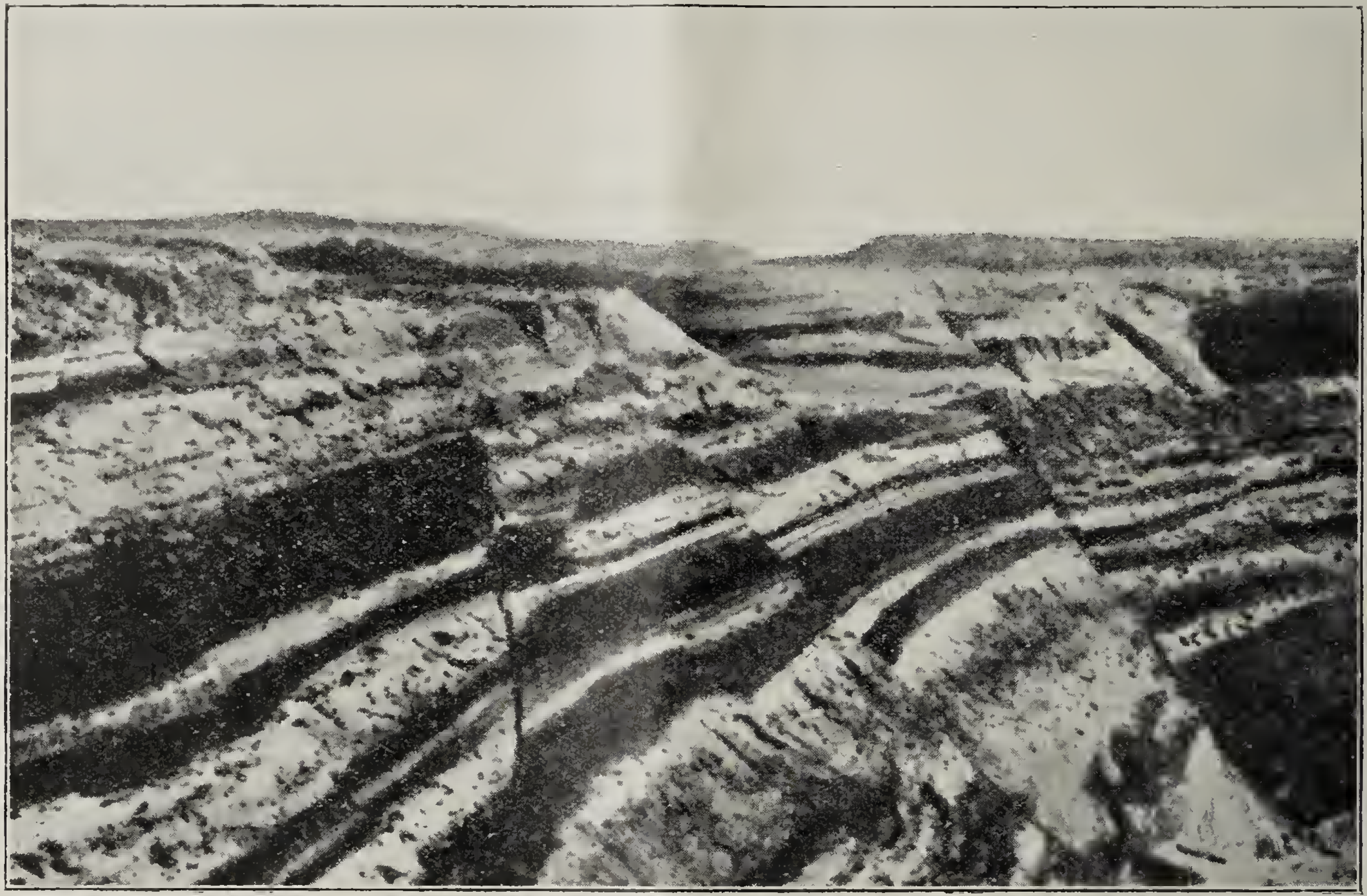

Fig. 13.—Section of Oil-Bearing Strata on Island of Cheleken, Caspian Sea.

Showing amongst other features the causes of irregular distribution of petroleum and variable depths and thicknesses of beds, and how fault planes may affect the production of wells. Similar features characterise most oil-fields where the beds are much inflected, and the reasons for widely differing logs of neighbouring wells is apparent.

……………………………………………………………………………………

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For Extract from Preface and Summary of Contents, see previous page.

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ANALYSES OF NEW ZEALAND OIL.

The report of the New Zealand Geological Survey for the year ended May, 1909, gives the results of analyses of three samples of oil obtained from springs at Waitangi Hill, near Gisborne, Poverty Bay, North Island:—

	1 Per cent.	2 Per cent.	3 Per cent.
Water	0·3	0·2	Nil.
Oils distilling below 150° C. (benzine, etc.)	0·2	0 5	Nil.
Oils distilling between 150° and 300° C. (burning oil)..	41·0	39·0	47·2
	S.G. 0·8459	S.G. 0·8344	S.G. 0·836
Residual oil distilling above 300° C. (lubricating oils, paraffin, etc.)	58·5	60·3	52·8
	S.G. 0·9107	S.G. 0·9002	

Nos. 2 and 3 are from the main oil spring, while No. 1 is from a test pit sunk about three chains from the main spring.

From these analyses, says the report, it will be seen that the oil contains an average of over 40 per cent. of burning oils and a large percentage of lubricating oils. On account of the moderately large percentage of burning oils, the crude product is of especial importance, since it can, in certain cases, be used for heating purposes, without any refinement.

◆

THE PETROLEUM TRADE OF TURKEY.

The Constantinople correspondent of the *Berliner Tageblatt*, in an article upon the petroleum trade in Turkey, points out that the Standard Oil Co. has for some time past made the greatest endeavours to enter the Turkish market, and has not been unsuccessful in this direction. Both Roumanians and Americans grant favours to customers that the Russians are unable to resolve to concede, and, if the Russian oil were not superior to the Roumanian, the losses of the Russians would be still greater than they are. If the rumours of a diminution in the yield of the oil wells at Baku should prove to be correct, the Russian product would soon entirely disappear from the markets in the Levant. At present the imports of petroleum into Turkey amount to 2,500,000 cases, or 5,000,000 tins, Constantinople and its environs alone consuming 900,000 cases. The employment of petroleum makes further progress, not only for lighting, but also for heating, cooking, and for motive power purposes.

The price of Russian petroleum is subject to heavy fluctuations, and is highest in the winter, owing to the freezing over of the Volga. On the other hand, Roumanian, Galician and American oil is always quoted lower than Russian. A mixture of American and Austrian oil is forwarded from Venice, but it is not held in particular esteem. Some of the merchants in Turkey like to fill Russian tins with Roumanian oil and sell it as the Russian product. Formerly petroleum was sold in cases, each containing two tins, but now it is also sold in tins, and the refineries save the cost of the cases, and scarcely one-fifth of the imports now arrives in cases. The empty tins serve as raw material to the numerous Jewish tinsmiths, and the imports of tin plates is, therefore, not considerable. As the petroleum trade requires the possession of large capital, it is vested in the hands of only a few firms. The Russians have monopolised four firms, whilst the Roumanian industry is represented by the Steaua Romana. It is said, adds the writer, that the Government intends to convert the petroleum trade into a State monopoly.

◆

THE PETROLEUM TRADE OF AVONMOUTH.

Referring to the growth of the trade of Avomonuth as an import port, a writer in the *Western Daily News* this week points out that one of the features of the trade at the Avonmouth docks, which can be contemplated with complete satisfaction, is the great oil business which has been developed by the two important concerns, the British Petroleum Co., and the Anglo-American Co. The value of Bristol as a centre for distribution throughont the West and Midlands has been recognised to the full by these enterprising firms, and the effect on the trade of the port might be gathered from the fact that one firm alone has received consignments amounting in the aggregate to 2,242,820 gallons within the course of a few weeks, and on Thursday of this week the steamship "Suram" is expected with a cargo of 1,265,000 gallons "American standard white lamp oil" for the British Petroleum Co. The oil industry has many particularly interesting aspects, and a visit to that portion of the docks in which the operations are carried on is most instructive. It is satisfactory to learn that this business, important as it now is, is increasing steadily, the returns for the past year shewing a marked advance on those of the preceding year.

DETAILS OF BAKU PRODUCTION DURING NOVEMBER, 1909.

The following are the details of the production of crude oil at the Baku oil fields during November, as published in the latest issue of the *Neftiannoie Dielo* (in poods):—

	Number of Wells in Exploitation.	Production (in poods).				Average per Well per Day
		By Baling.	By Spouters.	Casual.	Total.	
Balakhany	774	6,052,177	—	14,443	6,066,620	272
Saboontchi	853	16,641,800	169,307	294,948	17,106,055	695
Ramany	204	6,951,610	—	12,960	6,964,570	1,192
Bebe-Aibat	283	9,601,020	—	11,410	9,612,430	1,192
Total for November, 1909	2,114	39,246,607	169,307	333,761	39,749,675	653
,, ,, 1908	1,922	37,205,796	1,179,300	333,126	38,718,222	691

During November the production from spouters was obtained from the following wells:—

			Poods.
At Saboontchi	By the Nagieff Co.	From Well No. 51	120,000
,, ,, ...	By Nobel Bros.	,, ,, No. 428	49,307

PETROLEUM IMPORTS INTO THE UNITED KINGDOM DURING JANUARY.

THE SHIPMENTS INTO VARIOUS PORTS.

The shipments of petroleum products into the various ports of the United Kingdom during January amounted to 19,307,330 gallons, and were divided between the various ports as under:—

Port.	Illuminating.	Lubricating.	Residuals.	Gas Oil. (Solar.)	Benzine.	Fuel Oil.	Other Descriptions.
Aberdeen	9,320	80	—	—	—	—	—
Barrow	—	—	—	—	1,724,750	—	—
Belfast	—	2,570	—	391,610	—	—	—
Boston	—	—	—	—	—	200	—
Bristol	520,440	177,070	—	934,140	—	—	510
Cardiff	—	1,150	—	—	—	—	—
Cork	—	50	—	—	—	—	—
Dublin	—	1,200	—	—	—	—	—
Dundee	800	5,720	—	—	—	—	—
Glasgow	2,000	166,380	—	—	—	—	—
Goole	—	340	—	—	—	—	—
Grangemouth	34,000	7,620	—	—	—	—	—
Grimsby	—	3,340	—	—	—	—	—
Hartlepool	2,000	600	—	—	—	—	—
Harwich	—	920	—	—	—	—	—
Hull	—	193,450	—	—	—	—	880
Leith	15,260	24,700	—	—	—	—	—
Liverpool	5,130	1,472,060	—	—	—	—	15,640
London	2,167,930	1,140,340	—	4,000,650	3,415,970	296,370	3,480
Manchester	772,880	1,267,590	—	—	—	—	18,030
Middlesbro'	—	240	—	—	—	—	—
Newcastle	8,290	9,720	—	—	—	—	—
Newport	—	870	—	—	—	—	—
Southampton	—	53,000	—	—	—	—	—
Sunderland	—	—	—	52,000	—	384,000	—
Swansea	—	2,040	—	—	—	—	—
Totals	3,538,050	4,531,050	—	5,378,400	5,140,720	680,570	38,540

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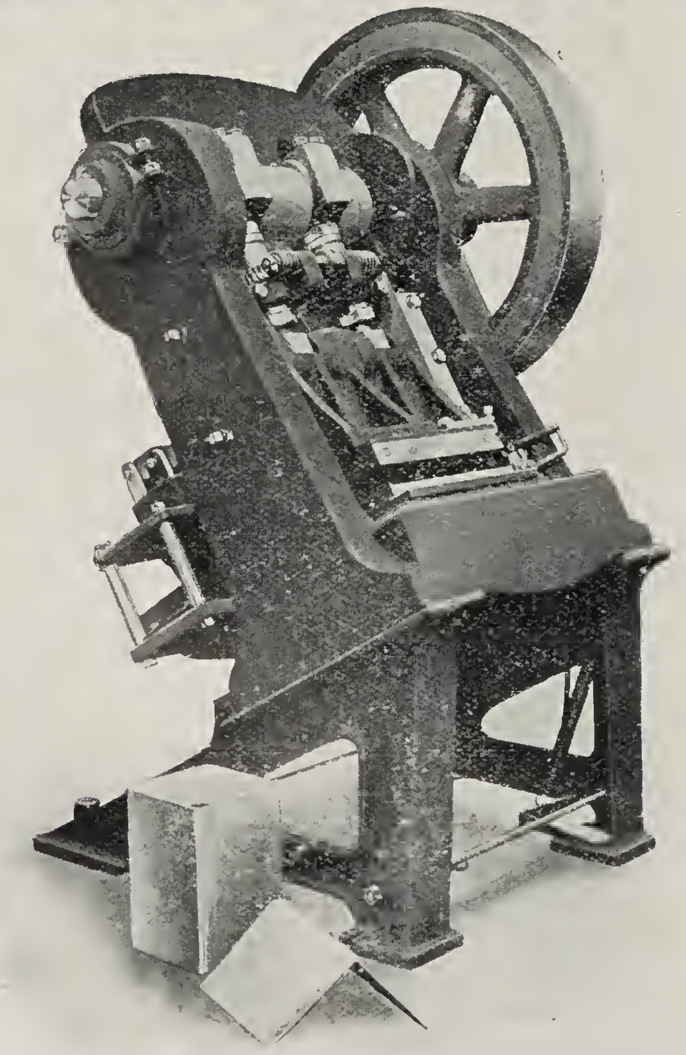
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THE CONSTITUENTS OF OKLAHOMA AND KANSAS CRUDE OIL.

IMPORTANT ANALYSES BY DR. DAVID T. DAY.

Dr. David T. Day, the well-known petroleum expert and Chief of the United States Geological Survey, has recently completed a careful study of the characteristics of Oklahoma and Kansas crude oil. Our contemporary, the *Oil, Paint and Drug Reporter*, publishes in its current issue the results of these more important analyses which are embodied in the following tables:—

ANALYSES OF CRUDE PETROLEUM FROM OKLAHOMA.

Locality of well.	Depth of well (feet).	Physical properties. Grav. at 60° F. Specific Grav.	Physical properties. Grav. at 60° F. Degrees B.	Physical properties. Colour.	Distillation by Engler's method. Begins to boil at °C.	By volume. Gasolene. To 150° C. Cubic centimeters	Gasolene. Specific gravity.	Kerosene. 150° to 300° C. Cubic centimeters	Kerosene. Specific gravity.	Residuum. Cubic centimetres	Residuum. Specific gravity.	Total (cubic centimetres).	Unsaturated Hydro-carbons. Crude (per cent.)	Unsaturated Hydro-carbons. 150° to 300° (per cent.)	Paraffin (per cent.	Asphalt (per cent.)
Tulsa county—																
Red Fork pool	638	0·8368	37·3	Green	88	15·0	0·7195	36·0	0·7945	48·5	0·9073	99·5	22·4	—	2·60	0·0
Red Fork pool	601	0·8323	38·2	Dark green	93	9·0	0·7220	40·5	0·7814	48·5	0·9038	98·0	17 6	1	4·39	0·0
Red Fork pool	1,200	0·8358	57·5	Black	97	8·0	0·7268	44·5	0·7882	47·0	0·9021	99·5	14·4	3	3·92	0·35
Creek county—																
Bird Creek and Skiatook pools	1,420	0·8495	34·8	Dark green	100	7·0	0·7380	38·5	0·8018	52·8	0·9021	98·3	29·2	9	2·87	0·62
Skiatook pool	1,408	0·8480	35·1	Dark green	95	6·0	0·7348	37·0	0·7898	54·9	0·9032	97·9	14·8	7	7·35	0·23
Skiatook pool	1,412	0·8439	35·9	Dark green	98	5·0	0·7440	36·0	0·7858	58·8	0·8997	99·8	12·8	10	9·74	0·50
Glenn pool	1,500	0·8459	35·5	Black	112	7·5	0·7464	42·0	0·7980	50·0	0·9061	99·5	21·2	6	5·41	0·11
Glenn pool	1,518	0·8439	35·9	Black	105	8·0	0·7508	44·5	0·8008	48·0	0·9091	100·5	20·8	6	7·53	0·90
Glenn pool	1,529	0·8333	38·0	Black	80	11·5	0·7260	43·5	0·7964	45,3	0·9079	100·3	21·6	4	11·46	0·35
Glenn pool	1.553	0·8424	36·2	Black	98	10·0	0·7402	42·5	0·7990	47·6	0·9079	100·1	26·4	6	9·70	0·51
Mounds pool	2,340	0·8631	32·2	Bri't green	175	—	—	38·5	0·8126	59·9	0·8992	98·4	12·4	4	8·44	0·62
Okmulgee county—																
Morris pool	—	0·8459	35·5	Li'ht green	112	3·0	—	34·0	0·7924	62·1	0·8866	99·1	10·0	1	11·90	0·0
Morris pool	1,600	0·8383	37 0	Dark green	82	10·0	0·7260	30·0	0·7988	57·1	0·8861	97·1	13·6	3	9·46	0·0
Morris pool	1,600	0·8403	36·6	Green	75	13·0	0·7338	31·0	0·8008	56·4	0·8895	100·4	13·2	8	6·75	0·10
Bald Hill pool	1,680	0·8531	34·1	Dark green	110	5·5	0·7515	36·0	0·8018	58·0	0·9003	99·5	20·0	8	3·43	0·15
Bald Hill pool	1,703	0·8578	33·2	Dark green	131	1·5	—	35·5	0·8096	62·4	0·8992	99·4	16·4	3	5·70	0·76
Muskogee county—																
Muskogee pool, new field	1,553	0·8328	38·1	Green	97	11·0	0·7332	36·0	0·7960	52·8	0·8866	99·8	15·2	4	7·64	0·0
Muskogee pool, new field	1,558	0·8314	38·4	Green	93	12 0	0·7298	38·0	0·7984	50·3	0·8861	100·3	15·2	3	2·24	0·0
Muskogee pool, new field	—	0·8358	37·5	Olive green	99	3·5	0·7415	41·0	0·7816	55·5	0·8838	100·0	17·6	2	12·45	0·0
Muskogee pool, old field	1,000	0·8216	40·4	Light olive green	110	5·5	0·7415	46·0	0·7812	43·7	0·8745	95·2	12·0	4	3·88	0·0
Seminole county—																
Wewoka pool	1,625	0·8844	28·3	Black	123	1·5	--	30·0	0·8266	67·3	0·9057	98·8	30·0	3	6·28	0·90
Kiowa county—																
Gotebo pool	365	0·8480	35·1	Black	115	3·5	0·7399	46·5	0·7828	51·5	0·9097	101·5	29·6	15	5·56	1·30
Pawnee county—																
Cleveland pool	—	0·8485	35·0	Black	97	10·0	0·7428	37·5	0·8074	53·2	0·8980	100·7	34·8	5	6·06	0·20
Cleveland pool in city limits	—	0·8516	34·4	Dark green	100	9·5	0·7794	35·0	0·8166	55·4	0·8980	99·9	38·4	3	7·75	0·03
Cleveland pool in city limits	—	0·8542	33·9	Dark green	115	2·5	0·7705	40·0	0·8060	55·4	0·8902	97 9	35·2	2	6·63	0·15
Cleveland pool, Jordan Valley township	1,157	0·8464	35·4	Dark green	110	5·0	0·7530	44·0	0·7992	48·8	0·8974	97·8	32·4	3	5·55	0·05
Cleveland pool, Jordan Valley township	1,174	0·8403	36·6	Dark green	108	7·5	0·7398	44·5	0·7882	48·5	0·8974	100·5	33·2	5	5·59	1·18
Osage county—																
Bartlesville pool	—	0·8584	33·1	Dark green	130	3·0	0·7625	39·0	0·8116	58·7	0·8980	100 7	25·2	2	5·27	0 18
Bartlesville pool	1,487	0 8521	34·3	Black	115	3·0	—	43·5	0·7818	54·0	0·8992	100·5	20·4	9	2·73	1·00
Shallow Sand pool	1,088	0·8398	36·7	Black	76	11·5	0 7101	35·0	0·7869	51·9	0·9050	98·4	21·2	8	—	1·26
Washington county—																
Bartlesville pool	—	0·8521	34·3	Dark green	103	8·0	0·7378	37·0	0·8090	51·5	0·9038	99·5	24·4	4	3·75	0·23
Dewey & north of Dewey	1,200	0·8605	32·7	Dark green	103	3 0	—	42·0	0·8008	55·7	0·9 03	100·7	18 8	1	6·07	0·47
Dewey & north of Dewey	525	0·8772	29·6	Black	128	1·0	0·8549	32·0	0·7972	63·3	0 9024	96·3	38·0	2	3·50	1·43
Webber pool	1,250	0 8368	37·3	Dark green	70	13·0	0·7214	32·0	0·8003	51·9	0 9067	97·9	20·8	4	3·01	0·94
Webber pool	1,300	0·8547	33·8	Dark green	95	7·5	0 7559	39·0	0·8128	53·1	0·8906	99·6	30 8	14	2·26	0·85
Rogers county—																
Alluwe pool	400	0·8413	36·4	Dark green	67	10 0	0·7134	33 0	0·7910	54·2	0·9091	97·2	21·2	9	6·14	0·55
Alluwe pool	400	0·8413	36·4	Gr'nish blk	65	15·0	0·7245	32·0	0 7995	50·1	0·9163	97·1	23·2	9	2·80	4·01
Chelsea pool	500	0 9511	34·5	Gr'nish blk	80	13·5	0 7148	31·0	0·8035	54·8	0·9163	99 3	26·0	8	9 10	1·26
Chelsea pool	498	0·8516	34·4	Dark bro'n	97	6·0	0·7206	35·0	0·7924	54·6	0·9272	95·6	26·4	13	4·16	2·19
Nowata county—																
Childers pool	735	0·8449	35·7	Dark green	80	14·0	0·7415	33·0	0·8035	51 2	0·9090	98·2	38·4	10	4·51	0·75
Delaware pool	812	0·8493	34·8	Lig't green	65	16·5	0·7435	35·0	0·8195	47·4	0 9156	98·9	18.4	8	4 18	1·69
Deleware pool	830	0·8424	36·2	Dark green	81	9·0	0·7182	38·5	0·7966	51·6	0·9138	99·1	12 8	10	8·23	1·74
Delaware and Childers pools	—	0·8500	34·7	Dark bro'n	107	3·0	—	42·0	0·7918	49·8	0·9103	94·8	24·0	3	4·45	0 26
Nowata & Rogers counties—																
Shallow Sand pool	—	0·8537	34·0	Black	100	7·0	0 7380	39·0	0·8034	53·8	0 9103	99·8	24·4	3	3·04	0·12

THE CONSTITUENTS OF OKLAHOMA AND KANSAS CRUDE OIL.—(*Concluded*).

Analyses of Crude Petroleum from Kansas.

Location of well.	Physical properties.					Distillation by Engler's method.							Unsaturated Hydro-carbons.			
	Depth of well (feet).	Grav. at 60° F.		Colour.	Begins to boil at °C.	By volume. Gasolene To 150° C.		Kerosene. 150° to 300° C.		Residuum.		Total (cubic centimetres).			Paraffin (per cent.)	Asphalt (per cent.)
		Spec. Grav.	Degrees B.			Cubic centimeters	Specific gravity.	Cnbic centimeters	Specific gravity.	Cnbic centimeters	Specific gravity.		Curde (per cent.)	150° to 300° (per cent.)		
Montgomery county—																
Coffeyville pool	600	0·8822	28·7	Dark green	173	—	—	31·0	0·8082	66·2	0·9138	97·2	22·0	—	5·31	0·17
Coffeyville pool	625	0·8717	30·6	Black ..	100	6·0	0·7289	33·0	0·8030	58·3	0·9241	97·3	24·4	—		
Bolton pool	1,180	0·8424	36·2	Black ...	72	14·7	0·7273	31·0	0·8095	49·2	0·9365	94·9	20·0	—	—	—
Chautauqua county—																
Peru pool	—	0·8526	34·2	Black ..	87	7·0	0·7244	32·5	0·7934	58·7	0·9150	98·2	27·6	5	3·81	0·35
Peru pool	1,070	0·8557	33·6	Dark green	110	7·0	0·7310	37·0	0·7975	63·2	0·9150	97·2	24·8	—	5·79	1·53
Elk county—																
Longton pool	585	0·8637	32·1	Black ..	98	12·0	0·7202	27·5	0·7920	59·3	0·9229	98·8	29·6	5	7·19	0·89
Wilson county—																
Neodesha pool	800	0·8373	37·2	Dark green	80	17·0	0·7172	30·0	0·8005	48·6	0·9079	95·6	18·0	—	3·40	0·08
Neodesha pool	820	0·8368	37·3	Black ..	88	16·0	0·7158	36·0	0·7925	47·7	0·9091	99·7	20·0	—		
Allen county—																
Humboldt pool	—	0·8878	27·7	Dark green	123	1·0	—	29·0	0·8152	68·9	0·9247	98·9	32·8	2	3·93	2·33
Humboldt pool	851	0·8895	27·4	Black ..	110	3·0	--	29·0	0·8142	67·0	0·9284	99·0	23·6	6	1·92	2·68
Chanute pool	700	0·8706	30·8	Dark green	125	3·0	0·7500	37·5	0·8029	59·3	0·9229	99·8	26·0	1	3·78	0·89
Chanute pool	—	0·8615	32·5	Black ..	90	7·5	0·7156	33·0	0·8022	58·7	0·9192	99·2	24·0	8	1·45	1·50
Chanute pool	—	0·8637	32·1	Dark bro'n	113	4·5	0·7405	35·0	0·7927	57·2	0·9174	96·7	24·4	8	4·32	1·15
Moran pool	735	0·8794	29·2	Black ..	95	8·0	0·7275	29·0	0·8137	61·0	0·9358	98·0	19·6	3	1·21	2·63
Moran and Bronson pool	—	0·8589	33·0	Black ..	106	3·0	0·7330	37·0	0·7822	59·5	0·9192	99·5	27·6	6	4·61	2·32
Neosho county—																
Erie pool	—	0·8739	30·2	Black ..	135	1·0	—	34·0	0·9000	64·1	0·9115	99·1	27·2	7	4·78	3·20
Miami county—																
Paola pool..	360	0·8511	34·5	Black ..	80	10·0	0·7202	33·0	0·7964	55·8	0·9223	98·8	19·6	8	7·44	2·94
Franklin county—																
Rantoul pool	350	0·8557	33·6	Black ..	76	11·5	0·7116	29·5	0·7950	54·9	0·9272	95·9	34·0	—	3·45	2·29

ENGLISH PATENTS.

(Specially contributed by Messrs. EDWARD EVANS & Co., Consulting Engineers, Chartered Patent Agents, and Enrolled Patent Attorneys, of the United States, of 27, Chancery Lane, London, W.C.

Applications Filed in Great Britain.

Solidifying Petroleum Spirit and Raising the Flash Point of the Product.—Frederic Seaton-Snowdon and David Aitken Young, 185, South Croxted Road, West Dulwich, London, No. 207 of 1910.

Applications Published in Great Britain.

Improvements in and relating to Venting Apparatus for Cans, Tanks, or the like for containing Volatile and other Imflammable Liquids.—William Hans Milde, 46, Dover Street, Piccadilly, London. No. 1405 of 1909.

This relates to a means for venting cans and tanks for containing volatile inflammable and other liquids, to prevent the liability of explosion, and consists in providing a device of the nature of a valve, which is mounted in a suitable seating in or in connection with the can or tank, which valve is kept normally closed against the pressure of a spring, by means of a medium which will remain solid at ordinary temperature, but which will melt at a predetermined temperature, so that when such temperature is reached, the medium melts and the valve is liberated and opens, thus providing a means of egress for the accumulated gas or vapour in the inside of the can or tank, consequently doing away with the risk of explosions. Means may also be combined with the device for preventing a flame reaching the interior of the can or other vessel when the valve is opened.

A New or Improved Level Gauge and Liquid-delivery Apparatus for use with Petrol Tanks and the like.—James Black Dall, Commercial Road, Ladybank, Fife. No. 7999 of 1909.

This relates to a combined gauge and liquid-delivery apparatus for use with petrol and like tanks, and comprises a perforated cylinder or barrel adapted to be fixed within the tank and a sliding member or plunger adapted to telescope within the barrel, and when drawn out therefrom to shew at a glance the level of the petrol in the tank, the apparatus also being constructed so that when desired a quantity of petrol may be obtained thereby from the tank.

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The American Oil Market.

New York, Week ended Jan. 29th.

Operations are still impeded in most of the Eastern fields by the unfavourable winter conditions, and about the only districts which shew anything like their usual activity are in West Virginia and Illinois. In the other States there is little prospect for a general resumption of drilling until spring. The feature of West Virginia developments during recent months, the Shinnston pool in Harrison county, is attracting less attention, as the outlook for any material extension of the producing limits is subjected to repeated disappointment, together with the steady decline in the production of the wells of the gusher type in the defined territory. The best completion of the week, says the *Oil, Paint and Drug Reporter*, was a 175-barrel well in the north-eastern section of the pool. A well brought in last month with an initial flow of 300 barrels a day when agitated responded by an output of 45 barrels an hour. The three leading producers in the pool have recorded a material decline, a late report giving their daily total as 2,025 barrels, against 3,300 barrels during the previous week. The entire Shinnston pool is now credited with a daily output of less than 8,000 barrels. Roane county in the same State is forging to the front as the most active field, the regularity of the producing formation offering fairly assuring results. A 50-barrel well was the feature of the week in Roane county. Interest in Lincoln county operations is in abeyance with the apparent defining of the production area, and the comparatively unimportant returns from drilling in the established sections. Marion county furnished an interesting development in a completion that registered 195 barrels the first 24 hours after the 30-foot formation had been reached. There was little change in the conditions of the Lima fields of North-western Ohio and Indiana last week. A slight increase was noted in new production in the Ohio end, but a material decrease marked the Indiana results. In the latter section the Oakland City field is maintaining its favourable record, the three completions of the week being in the producing column with a daily aggregate of 210 barrels. Kentucky advices indicate a lull in development work due to the retarding winter conditions and the depressed state of the crude market. The recent reduction in Ragland oil is expected to put a damper upon operations in the Bath-Rowan district producing that grade. Work is practically centred in Wayne county, and the only completion of the week of more than the average capacity was a 25-barrel producer in the Mount Pisgah district. Drilling in Illinois is still handicapped by the difficulty of moving supplies and machinery to the field. The only producer of consequence completed during the week was one credited with more than 700 barrels a day in the McCloskey formation of Dennison township, Lawrence county. It was believed that its capacity would shew an increase with the provision of additional tankage.

Refined and Products.—Conditions governing the local market for refined present little of new interest, and while the tone is still regarded as more or less easy, some improvement has been occasioned in the movement for foreign account. Charter engagements consummated during the week covered 565,500 cases, distributed as follows:—310,000 cases for Australia, February shipment from the local port; 170,000 cases for Japan, February shipment from Philadelphia; and 85,500 cases for China, Philadelphia loading, February. Clearances for the week from New York amounted to 5,532,650 gallons, against 17,137,750 gallons previously noted. Of the amount forwarded during the current week 1,200,000 gallons were carried in bulk. Domestic trading has been without incident, operations indicating the continued policy of buyers to operate within conservative limits under the present status of the market. The week's clearances of naphtha totalled 2,226,510 gallons, against 1,679,745 gallons previously reported.

CLOSING QUOTATIONS.

Crude at the Wells.

The quotations for oil represented by credit balances were:—

	Week ended Jan. 29. 1909.	Week ended Jan. 29. 1910.
Pennsylvania	$1·78	$1·40
North Lima	1·04	0·84
South Lima	0·99	0·79
Indiana	0·99	0·79
Illinois, heavy, below 30 deg.	0·60	0 52
Kansas and Indian Ter., 30 deg. and above	0 41	0·35
Heavy	0·28	0·28
Humble, Tex.	0·53	0·75
Saratoga	0·53	0·75
Sour Lake, Tex.	0·53	0·77
Jennings, La.	0·55	0·54
Canadian Oil:—		
Petrolia	1·44	1·24
Oil Springs, less pipeage	1·51	1·31

Refined – For Export.

In cents.		Week ended Jan. 29. S.W. 110 test.	W.W. 150 test.
Barrels, cargo	per gal.	7·90	@ 9·40
Philadelphia		7·90	@ 9·40
Bulk, New York		4·40	@ 5·90
Bulk, Philadelphia		4·40	@ 5·90
Cases, New York		10·30	@11·80
Cases Philadelphia		10 30	@11·80

Refined in Cases—110 Fire Test.

	Week ended Jan. 22. 1910.	Week ended Jan. 29. 1910
3,000 to 10,000	10·60	10·45
1,000 to 3,000	10 65	10·50

Refined—Jobbing Lots.

In barrels, pkgs. included.

	Week ended Jan. 22.	Week ended Jan. 29
130 fire test, S.W.	11¼	11¼
150 fire test, W.W.	11¾	11¾
In bulk from tanks	9	9

Naphtha and Gasolene.

	Week ended Jan. 22.	Week ended Jan. 29.
Naphtha, V. M. and P. deod.	12	12
Gasolene, 86 deg.	21¾	22¾

Pennsylvanian Oil Runs from January 13th to January 19th were:—January 13th, 194,103*; January 14th and 15th, 236,466*; January 16th, 38,464*; January 17th, 268,287*; January 18th, 161,161; January 19th, 196,293*.

The Deliveries of Pennsylvanian Oil from January 14th to January 20th were:—January 14th, 219,518*; January 15th and 16th, 433,830*; January 17th, 208,048; January 18th, 209,924*; January 19th, 194,600*; January 20th, 208,945*.

* Includes Illinois Oil.

Clearances for the Week.

During the week ended Jan. 21st and since Jan. 1, the clearances of petroleum, in gallons, from the port of New York, were as follows:—

	Week.	Year.	1909.
Refined	5,532,650	22,670,400	28,837,090
Crude	—	613,730	1,984,410
Naphtha	2,226,510	3,906,255	697,030
Residuum	32,500	57,500	30,000

Export Statistics.

The total exports from the port of New York and from the United States have been:—

	Gallons.
From New York, week ended Jan. 21st	7,376,867
Total from New York, from Jan. 1st, 1910	30,840,930
Same period last year	40,433,863
Decrease	9,592,933
From United States, week ended Jan. 21st	13 886,134
Total from United States, since Jan. 1st, 1910	40,736,063
Same period last year	78,992,382
Decrease	38,256,319

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The "Review" Shipping List.

February 11, 1910.

(The following abbreviations are used in this table:—L. Left; P. Passed; Arr. Arrived; Sp. Spoken; Tr. Trading.)
Anglo-American Co.'s vessels marked thus (□): the Anglo-Saxon Co.'s tankers thus (*): and Messrs. Lane and Macandrew's thus (†).

Vessel.	From.	For	Latest Date and Position.
ALCHYMIST	London	Selzaete	Arr. Feb. 8
ALICE ET ISABELLE (Fr. bq.)	New York	Rouen	In Port, Jan. 31
AMERICAN	Batoum	Antwerp	Arr. Feb. 8
APPALACHEE □	Hamburg	New York	Sd. Tyne, Feb. 8
APSCHERON	Antwerp	Batoum	L Feb. 5
ARAL	Tuborg	Tyne	In Port, Feb. 8
ARAS	Port Arthur (Texas)	London	S. Norfolk (Va.), Jan. 30
ASHTABULA □	Singapore	San Francisco	Arr. Feb. 6
ASTRAKHAN	Rotterdam	Tyne	Arr. Dec. 22, in Port, Jan. 31
AUGUST KORFF	Philadelphia	Manchester	In Port, Feb. 9, sold U.K. and named "Lackawanna"
AUGUSTA	Brunsbuttel	Hamburg	In Port, Feb. 8
AUREOLE	Port Arthur (Texas)	Antwerp	L. Jan. 24
AZOV	Tyne	Callao	P. Beachy Head, Feb. 8
BAKU STANDARD	Cardiff	Tyne	In Port, Feb. 8
BALAKANI†	Newport Nws	Manchester	Arr. Eccles, Feb. 8
BATOUM	London	Tyne	Arr. Jan. 21, in Port, Feb. 8
BAYONNE	Trieste	Batoum	L. Jan. 29
BEACON LIGHT	Batoum	Hamburg	P. Gibraltar, Feb. 6/7
BLOOMFIELD	Port Arthur (Texas)	London	L. Feb. 8
BORJOM	—	—	Tr. b'tw'n Black Sea & Levant
BRILLIANT	Alexandria	Philadelphia	P. Gibraltar, Jan. 30/31
BRILLIANT (Br. bq.)	Bombay	Baltimore & Philadelphia	L. Jan. 5
BRITISH SUN	Philadelphia	Port Arthur (Texas)	P. Del. Break., Jan. 22
BROADMAYNE	Tonsberg	Tyne	In Port, Feb. 8
BUFFALO	Cuxhaven	New York	P. Eastbourne, Jan. 28
BULLMOUTH*	Cochin	Kurrachee	Arr. Feb. 8
BULYSSES*	Yokohama	Kobe	Arr. Feb. 3
BURGERMEISTER PETERSEN	Philadelphia	Hamburg	Arr. Feb. 3, in Port, Feb. 8
CADILLAC	Karikal	—	L. Jan. 30
CALCUTTA (B. b.) □	San Francisco	Yokohama	Arr. Jan. 11
CAMILLO	Novorossisk	Brunsbuttel	P. Gibraltar, Feb. 9
CAPTAIN A. F. LUCAS	Boston	New York	L. Jan. 28
CARDIUM*	London	New York	P. Prawle Pt., Jan. 29
CARPATHIAN†	Cardiff	Port Arthur (Texas)	L. Jan. 31
CAUCASIAN†	Tyne	Philadelphia	P. Dunnet Head, Feb. 3
CHARLOIS	Philadelphia	Rotterdam	In Port, Feb. 8
CHESAPEAKE □	New York	Bombay	Arr. about Feb. 7
CHESTER	Kustendje	Antwerp	P. Gibraltar, Feb. 9
CHEYENNE	Savona	Philadelphia	Cld. Algiers, Feb. 5
CITY OF EVERETT	Havana	New York	Arr. Jan. 25, in Port, Jan. 26
CIUDAD DE REUS	New York	Barcelona	In Port, Dec. 28, repairing
CLAM*	Palembang	Balekpappan	L. Feb. 4
CLEARFIELD	Batoum	Rouen	L. Feb. 4
CONCH*	Sabang	Channel	P. Gibraltar, Feb. 4/5
CONRAD MOHR	Blyth	Philadelphia	Arr. Feb. 3
COWRIE*	Singapore	Calcutta	Arr. Feb. 7
CUYAHOGA □	Alexandria	New York	Arr. Jan. 25
CYMBELINE	Newport & Port Arthur (Texas)	Campana	Sd. Port Arthur, Jan. 9
CZAR NICOLAI II.	Batoum	Hamburg	Cld. Constant'ple, Feb 4
DAGHÊSTAN	Batoum	Hamburg	Arr. Feb. 6, in Port, Feb. 8
DAKOTAH □	Manila	San Francisco	Arr. Jan. 25
DANUBIAN†	Liverpool	Port Arthur (Texas)	P. Browhead, Jan. 25
DELAWARE □	Avonmouth	New York	P. Fastnet, Feb. 2
DERBENT	Batoum	Thameshaven & Antwerp	L. Feb. 2
DEUTSCHLAND	Rotterdam	New York	L. Jan. 30
DIAMANT	Hamburg	New York	In Tyne, Feb. 9
EDWARD DAWSON	Hull	Batoum	Cld. Constant'ple, Jan. 27
EL LOBO	Yokohama	San Francisco	Arr. Jan. 21, in Port, Jan. 24
ELAX*	Singapore	Amoy	Arr. Feb. 5
ELISE MARIE	New York	Swinemunde	L. Jan. 27
ENERGIE	Tyne	Philadelphia	Arr. Feb. 3
ERIVAN	Batoum	Thameshaven	P. Constant'ple, Feb. 1
ETELKA	Fiume	Pola	Arr. Dec. 14, sold Austrian Navy
EUPLECTELA*	Shanghai	Balekpappan	L. Jan. 30
EXCELSIOR	Amsterdam	New York	P. Nantucket, Feb. 9
FRANCE MARIE (French bq.)	Santander	Marseilles	Arr. Jan. 21. in Port, Feb. 8
GEESTEMUNDE	Philadelphia	Bremerhaven	Arr. Feb. 5
GENESSE □	London	Philadelphia	L. Feb 8
GEORGIAN PRINCE	Vallo	Tyne	Arr. Jan 31, in Port, Feb. 8
GOLDMOUTH*	Singapore	Europe	L, Jan. 29
GUTHEIL	Lisbon	Matanzas	Arr. Jan. 27
H. C. HENRY	Rotterdam	Tees	Arr. Feb. 4, in Feb. 7
HAINAUT (Du. sh.)	Antwerp	New York	P. Ventnor, Dec. 13
HARRY WADSWORTH	Hull	Port Arthur (Texas)	P. Prawle Pt., Jan. 20
HELIOS	Copenhagen	Philadelphia	P. Dunnet Head, Jan. 27
HERMIONE	Malta	Rangoon	Sd. Port Said, Jan. 29
HESPERUS	Bremerhaven	Tyne	L. Feb. 8
HOTHAM NEWTON	Zeebrugge	Hull	In Port, Feb 9, laid up
HYRCANIA	Batoum	Manchester	Sd. Avonmouth, Feb. 8
IOANNIS COUTZIS	Marseilles	Taganrog	At Piræus, Feb. 1
IROQUOIS □ (towing barge Navahoe)	New York	London	L. Jan. 27
J. B. AUG. KESSLER	Barrow	Novorossisk	L. Feb. 9
JAMES BRAND	London	Tyne	In Port, Feb. 8, laid up
JOYO MARU	—	—	Now "Camillo," which see
JULES HENRI (French bq.)	Cette	Marseilles	In Port, Feb. 8
KURA	Kustendje	Manchester	P. Constant'ple, Feb. 3
LA CAMPINE	Antwerp	Tyne	Arr. Feb. 4, in Port, Feb. 8
LA FLANDRE	Philadelphia	Antwerp	Arr. Feb. 8
LA HESBAYE	Kustendje	Antwerp	Cld. Constant'ple, Feb. 2
LACKAWANNA □	London	Hamburg	In Port, Feb. 8, sold Germany
LE COQ†	Malta	Bordeaux	L. Feb. 4
LOUTSCH	Odessa	Kustendje	Arr. Feb. 4
LUCERNA	Novorossisk	Ghent	Arr. Jan. 17
LUCIGEN	Trial Trip	Tyne	In Port, Feb. 8, laid up
LUCILINE†	Rouen	Cardiff	Arr. Feb. 9
LUMEN	Calais	Tyne	In Port, Feb. 8
LUTETIAN†	Newport (Mon.)	Tyne	P. St. Catherine's Point, Feb. 9
LUX†	Dunkerque	Cardiff	Arr. Feb. 9
MANHATTAN	New York	Malta & Tunis	P. Malta, Feb. 2/3
MANNHEIM	Tyne	New York	P. Dunnet Head, Feb. 9
MARGARETHA	Baltimore	Leghorn & Portici	P. Gibraltar, Feb. 8/9
METEOR	Vladivostock	Nagasaki	L. Dec. 28
MEXICAN PRINCE	Tyne	Cienfuegos	L. Feb. 4
MINA BREA	Caleta Buena	Callao	Arr. and in Port, Dec. 31

Vessel.	From.	For.	Latest Date and Position.
MINHLA	Rangoon	Calcutta	L. Feb. 2
MIRA	Calais	Blyth	In Port, Feb. 8, laid up
MUREX*	Port Natal	Singapore	Arr. Jan. 29, in Port, Feb. 2
NARRAGANSETT	London	New York	Off Portland, Feb. 10
NAVAHOE	London	New York	Arr. Jan. 25
NEW YORK□	New York	Rotterdam	Arr. Feb. 4, in Port, Feb. 8
NIAGARA	Calcutta	Singapore	Arr. Feb. 1
OBERON	Pt. San Luis	Tocopilla	Sp. Jan. 20 off San Miguel Island
OCEAN	New York	Amsterdam	Arr. Feb 5, in Port, Feb. 8
OILFIELD	Rouen	Tyne	In Port, Feb. 8
ORIFLAMME†	Malta	Rouen	L. Feb. 8
OTTAWA□	Sunderland	New York	Arr. Feb. 7
OURAL	Batoum	Rouen	At Vigo, Jan. 31
PATELLA*	Tyne	Singapore	P. Cape Point, Jan. 19
PAUL PAIX	Calais	Tyne	Arr. Jan. 15, in Port, Feb. 7
PAULA	Tyne	Philadelphia	L. Jan. 31
PECTAN	Panama	San Francisco	Arr. Jan. 22, in Port, Jan. 24
PENNOIL	Rotterdam	Philadelphia	Arr. Feb. 2
PETROLEINE	Cette	Batoum	L Jan. 29
PHOEBUS	New York	Rotterdam	L. Feb. 3
PINNA†	Yokohama	Dalny	Arr. Jan. 28
POTOMAC□	Philadelphia	Avonmouth	L. Jan. 27
PROGRESSO ARGENTINA (Ar. bq.)	Port Arthur (Texas)	Buenos Ayres	Arr. Dec. 10
PROMETHEUS	Rotterdam	New York	Arr. Feb. 4
PRUDENTIA	Hull	New Orleans	Sd. St. Michael's, Jan. 26
PURELIGHT	Hamburg	Philadelphia	Sd. Tyne, Feb. 5
QUEVILLY (Fr. bq.)	Rouen	Havre	In Port, Feb. 8
RENDOVA (Br. bq.)	Bonanza	Sydney	Sp. Oct. 31, 19 N., 25 W., "All well"
RION	Amsterdam	Blyth	In Port, Feb. 8
ROCK LIGHT†	Azores	Galveston	L. Feb. 5
ROMANY*	Singapore	Yokohama	L. Feb. 2
ROTTERDAM	Amsterdam	New York	Arr. Jan 30
ROUMANIAN†	Antwerp	Kustendje	Arr. Feb. 10
RUSSIAN PRINCE	Havana	Liverpool	L. Feb. 1
SALAHADJI*	Balekpappan	—	L. Feb. 7
SAN ANTONIO	Philadelphia	London & Southampton	L. Jan. 27
SAN IGNACIO DE LOYOLA (Sp. bq.)	New York	Pasages	L. Jan. 26
SANTA MARIA	San Francisco	Honolulu	L. Jan. 15
SANTA RITA	Pt. San Luis	Honolulu	Arr. Jan. 15
SARANAC□	New York	Liverpool	In Port, Feb. 9
SAXOLEINE	Kustendje	Havre	P. Constant ple, Feb. 4
SEMINOLE□	Shanghai	San Francisco	Sd. Moji, Jan. 28
SERVIAN†	Halifax	Manchester	L. Feb. 8
SNOWFLAKE	Cette	Newport	In Port, Feb. 9
SOYO MARU	Honolulu	Payta	L. Jan. 18
SPONDILUS*	Samboe	Europe	Sd. Sabang, Jan. 22
STANDARD	Tyne	New York	P. Dunnet Head, Feb 7
STROMBUS*	New York	British India	L. Feb. 7
SULTAN VAN LANGKAT*	Sydney	Balekpappan	Arr. Feb. 5
SUNLIGHT (Br. bq.)	Avonmouth	W. Indies	Sp. Jan 16, 52 N., 7 W.
SURAM	Port Arthur (Texas)	Avonmouth	Arr. Feb. 10
SUWANEE□	Corcubion	New York	Arr. Feb. 7
SVIET	Flushing	Batoum	Cld. Constant'ple, Jan. 17
TAMARAC□	London	Philadelphia	Arr. Feb. 9
TELENA*	London	Kustendje	Pd. Feb. 6/7
TEREK†	London	Kustendje	Arr. Feb. 8
TEXAS	New Orleans	Port Arthur (Texas)	Arr. Nov. 13
TIFLIS	Philadelphia	Hamburg	L. Feb. 1
TIOGA□	Philadelphia	Dublin	L. Jan. 27
TONAWANDA□	London	Tyne	Arr. Jan. 11. in Port, Jan. 26
TRINCULO	Tocopilla	Pt. San Luis	Arr. Feb. 3
TROCAS*	Singapore	Shanghai	L. Jan. 26
TUSCARORA	New York	Port Natal	L. Jan. 26
VEDRA	Liverpool	Batoum	L. Feb. 8
VILLE DE DIEPPE (Nor. bq.)	Philadelphia	Rouen	In Port, Jan. 24, laid up
VOLUTE*	Karatzu	Singapore	In Port, Feb. 2
WASHINGTON	Philadelphia	Hamburg	Arr. Jan 9, in Port, Feb 8
WASHTENAW	—	Port Harford	Arr. Jan. 21
WEEHAWKEN	Dublin	New York	Arr. Jan. 27
WILLKOMMEN	Hamburg	Philadelphia	P. Dunnet Head, Jan. 30
WINNEBAGO	Balekpappan	New York	Arr. Jan. 30

Latest Market Intelligence.

LONDON OIL MARKET.

Supplied by Messrs. Benjamin & Gee, 31, St. Mary Axe, E.C.

Feb. 11th, 1910.

There are no alterations to report in the price of Refined Petroleum, prices remaining for Russian, 5¾d.; Roumanian, 7d.; American, 6d.-6¼d.; Water White, 7d.-7¼d.

LUBRICATING OILS

are unaltered, current prices being for :—

American pale, £6 10s. to £10 10s.
American dark cylinder, from £7 12s. 6d.
American filtered cylinder, from £10 12s. 6d.
No. 1 Russian, for Spot, £8 2s. 6d.

TURPENTINE.

Turpentine has been fluctuating as usual since our last report, and is now slightly easier, for Spot it may be quoted 41s. 9d. to 42s.; March-April, 42s.; May-June, 42s. 3d.; July-December, 39s.

LIVERPOOL OIL MARKET.

Feb. 10th.

Refined oils are quiet, and sellers quote 6d., for Russian, Galician or Roumanian; and 6½d. to 7d. per gallon for American.

LATEST AMERICAN PRICES.

New York, Feb. 10th.

Refined, in cases, is steady at 10·30; Standard White, 7·90; Credit balances, 1·40.

Philadelphia, Feb. 10th.

Standard White is now quoted at 7·90.

GERMANY.

Hamburg, Feb. 10th.

American, ·800–6·30 marks; Pennsylvanian, 6·40 marks; Galician, 6·30 marks. Russian and Roumanian not on the market.

RUSSIA. Baku, Feb. 8th.

The market is now steady. Crude oil is quoted at 18¾ copecs per pood spot, Kerosene, in ships, 24¾ copecs spot; 27½ copecs next navigation. Mazout 19 copecs. Export at Batoum is stagnant.

BELGIUM.

Antwerp, Feb. 9th.

The petroleum market is without change. Price of Standard White, spot, 22·50 francs per 100 kilos.

ROUMANIA. Feb. 9th.

	Francs.
Crude oil from different fields, including pipe line charges, per 100 kgs.	3·50–3·60
Refined oil, exclusive of taxes, ex. refinery	8·30
Residuals in tank waggons, at refinery	3·40–3·50
Paraffin	110–120

Prices for Export.

Refined oil, f.o.b., per 100 kgs.	6·00–6·50
Benzine, sp. gr. 0·710–0·715, f.o.b.	16–17
„ sp. gr. 0·715–0·720 „	14·50–15·50
„ sp. gr. 0·730–0·740 „	10–11
„ sp. gr. 0·745–0·755 „	9–10
Lubricating, horticultural	33
„ prime	36
„ extra	42
„ Royal, "Steaua Romana"	46
Imperial "Aurora"	46
Vacuum-Ideal "Vega"	52

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IMPORTS of PETROLEUM into UNITED KINGDOM

Specially prepared for this Journal by the Custom House.

FOR THE WEEK ENDED JANUARY 31st, 1910—

Date.	Port and Importers.	Description.	No. of Gals.	Port Whence.
Jan.	London—			
25	Schlieman's Oil Co.	Lub.	1,800	Hamburg
25	Port of London Authority	,,	8,000	New York
25	Mordaunt Bros.	,,	14,200	,,
25	Langley, Smith and Co.	,,	2,360	,,
25	Fielder, Hickman and Co.	,,	6,800	,,
26	Anglo-American Oil Co.	,,	37,960	,,
26	Port of London Authority	,,	420	Antwerp
26	,,	,,	1.200	Hamburg
26	British and Foreign Wharf	,,	190	Antwerp
26	T. H. Lee	Lub. Gr.	1,460	Hamburg
27	Snowden, Sons and Co., Ltd.	Lub.	600	Riga
27	Anglo-American Oil Co.	,,	12,800	Philadel.
27	,,	,,	46,200	,,
27	Mercantile Lighterage Co.	,,	50,400	,,
27	Wilkins, Campbell and Co.	Lub. Gr.	480	Antwerp
27	J. Harrison	,,	870	,,
27	Mercantile Lighterage Co.	Lub.	16,610	,,
28	W. J. Mitchell	,,	460	Hamburg
28	Page, Son and East	Lub. Oil and Gr.	360	Antwerp
29	British and Foreign Wharf	Lub.	1,450	,,
31	Langley, Smith and Co.	,,	8,950	Philadel.
31	Anglo-American Oil Co. (Narragansett)	,,	305,640	New York
31	J. Harrison	Lub. Gr.	1,470	Antwerp
31	Page, Son and East	Lub. Oil and Gr.	120	,,
	Liverpool—			
25	D. Currie and Co.	Lub. Oil and Gr.	690	Hamburg
25	Davies, Turner and Co.	Lub.	160	Boston
25	Huxley and Co.	,,	1,130	New York
25	J. Light and Son	,,	1,000	,,
26	J. T. Fletcher and Co.	,,	240	Ghent
27	Pickfords, Ltd.	Lub. Oil and Paste	310	Hamburg
27	Bowring Petroleum Co.	Lub.	1,750	Philadel.
27	Worthington and Boler	,,	3,000	,,
27	Meade-King, Robinson & Co.	,,	30,360	,,
27	W. B. Dick and Co.	,,	5,410	,,
27	Huxley and Co.	,,	2,680	,,
27	,,	,,	320	Hamburg
28	Liverpool Warehousing Co.	Lub. Gr.	280	,,
28	G. B. Taylor	Lub.	25,280	Philadel.
28	Bramwell, Fern and Co.	,,	3,050	,,
28	Crew, Levick and Co.	,,	29,070	,,
29	Fellowes, Morton & Clayton	,,	1,000	,,
29	Ismay, Imrie and Co.	,,	240	New York
29	G. B. Taylor	,,	41,160	,,
29	Vacuum Oil Co.	L. Resid.	12,000	,,
29	,,	Lub.	16,440	,,
29	Meade-King, Robinson & Co.	,,	18,440	Baltimore
29	,, ,,	Lub. Gr.	2,800	,,
29	A. Hopps and Sons	Lub.	10,700	,,
29	A. Hopps and Sons	M. Colza	5,600	Baltimore
29	W. B. Dick and Co.	Lub.	7,840	,,
31	C. C. Wakefield	Lub. Gr.	620	Antwerp
31	American Line	Lub.	5,400	Philadel.
31	Valvoline Oil Co.	,,	2,050	New York
31	Burnaby and Chantrell	L. Comp.	950	,,
	Barrow—			
31	Asiatic Pet. Co. (A. Kessler)	Benzine	1,724,750	Pulo Samboe
	Boston—			
17	W. F. Beaumont	Fuel	200	Hamburg
	Bristol—			
24	J. and R. Bush	Lub.	58,800	New York
24	C. Hill and Sons	,,	10,700	,,
25	Anglo-American Oil Co. (Genesee)	G. Resid.	934,140	Philadel
25	Pickfords, Ltd.	Lub. Oil and Paste	850	Hamburg
25	,,	Lub.	240	Hamburg
26	Ford and Canning	Lub. Gr.	480	New York
28	W. G. Clarke	,,	400	,,
28	Anglo-American Oil Co. (Delaware)	Lamp	520,440	New York
29	J. Hare and Co.	Lub.	2,440	Hamburg
	Grimsby—			
21	J. Sutcliffe and Son	,,	1,480	Antwerp
	Hull—			
24	Wilsons and N.E. Co.	,,	840	,,
25	T. Wilson Sons and Co.	,,	13,200	New York
25	W. Gilyott and Co.	,,	10,560	,,
27	Wilsons and N.E. Co.	,,	1,800	,,
27	,,	,,	880	Antwerp
28	T. Wilson, Sons and Co.	,,	3,640	Reval
	Manchester—			
25	Meade-King, Robinson & Co.	,,	3,000	Philadel.
25	Crew, Levick and Co.	,,	17,920	,,
25	,,	M. Colza	3,190	,,
25	C. H. Morton and Son	Lub.	2,600	,,
25	Bramwell, Fern and Co.	,,	46,700	,,
25	G. B. Taylor	,,	68,960	,,
26	Bramwell, Fern and Co.	,,	880	,,
26	J. T. Fletcher and Co.	Lub. Gr.	160	Antwerp
26	Wilson, Son and Co.	Lub.	140	Rotterdam
31	W. Hodgson and Co.	,,	2,700	New York
31	Mersey & Weaver Canal Co.	,,	800	,,
31	Diamond Lubricating Co.	,,	3,390	,,
31	George B. Taylor	,,	120,440	,,
	Newcastle—			
21	Tyne Tees SS. Co.	,,	4,000	Hamburg
27	,,	,,	1,760	,,
	Southampton—			
25	P. E. Curry	,,	3,160	New York

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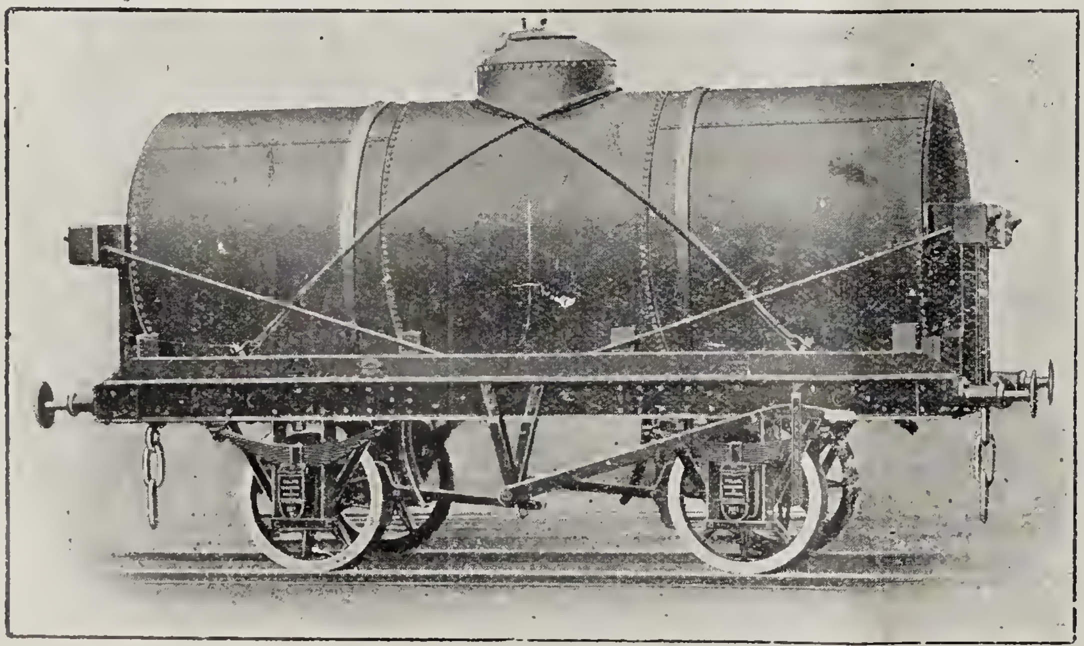

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IMPORTS.—(*Concluded*).

Date. Jan.	Port and Importers	Description.	No. of Galls.	Port Whence.
	Dundee—			
27	D. Alexander and Sons	Lub.	400	Hamburg
27	A. Gray	,,	400	,,
	Leith—			
24	W. Graham-Yooll and Co.	Lamp	6,540	,,
24	J. Currie and Co.	Lub.	680	,,
27	W. Graham-Yooll and Co.	Lamp	6,540	,,
29	G. Gibson and Co.	Lub.	520	Antwerp
	Grangemouth—			
27	W. G. Yooll and Co.	Lamp	10,000	Hamburg
	Belfast—			
29	Meade-King, Robinson & Co. (Vedra)	Gas	391,610	Pt. Arthur
28	J. C. Pinkerton and Co.	Lub. Oil and Gr.	330	Hamburg
	Total for the Week		4,733,430	

FOR THE WEEK ENDED 7TH FEBRUARY, 1910—

Date. Feb.	Port and Importers.	Description.	No. of Galls.	Port Whence.
	London—			
1	Port of London Authority	Lub.	3,150	Hamburg
1	British and Foreign Wharf	,,	80	Antwerp
1	Produce Brokers' Co.	,,	2,400	Hamburg
1	B. Jacobs and Sons	,,	5,000	,,
1	Schlieman's Oil Co.	Lub. Oil and Gr.	3,340	,,
1	Grindley and Co.	Lub.	4,000	New York
2	Fielder, Hickman and Co.	,,	16,400	,,
2	Asiatic Petroleum Co.	Benzine	5,000	Rotterdam
3	Anglo-American Oil Co.	Lub.	74,000	New York
3	Page, Son and East	Lub. Gr.	90	Antwerp
3	T. H. Lee	Lub.	390	Hamburg
4	C. Jameson	,,	240	,,
4	A. Brown and Co.	,,	3,600	Philadel.
4	M. Record	,,	4,000	,,
4	Mercantile Lighterage Co.	,,	64,000	New York
5	Bowring Petroleum Co.	,,	3,650	Philadel.
5	Scott's Wharf	,,	2,000	New York
5	Mercantile Lighterage Co.	,,	64,000	,,
5	Langley, Smith and Co.	,,	4,450	,,
5	Mordaunt Bros.	,,	8,300	Philadel.
5	Lub. and Fuel Oils Co.	,,	5,330	,,
5	Lucas and Spenser	,,	16,180	,,
5	A. Brown and Co.	Lamp	4,280	,,
5	Port of London Authority	Lub.	2,040	Hamburg
7	Page, Son and East	Lub. Gr.	320	Antwerp
7	British and Foreign Wharf	Lub.	410	,,
7	Produce Brokers	,,	20,000	New York
7	G. W. Sheldon and Co.	,,	210	,,
7	Ragosine and Co.	,,	2,820	Philadel.
	Liverpool—			
1	G. B. Taylor	,,	53,900	New York
1	J. Light and Son	,,	2,000	,,
1	,,	,,	2,720	Baltimore
1	Ismay, Imrie and Co.	Lub. Gr.	400	New York
1	Vacuum Oil Co.	Lub.	38,600	,,
3	,,	,,	3,200	,,
3	Bowring Petroleum Co.	,,	2,270	,,
3	Pickfords, Ltd.	Lub. Oil and Paste	80	Hamburg
4	Bowring Petroleum Co.	Lub.	5,450	Philadel.
5	Worthington and Boler	,,	2,400	,,
7	Crew Levick and Co.	M. Colza	10,450	,,
7	,,	L. Resid.	4,270	,,
7	,,	Lub.	34,630	,,
7	W. B. Dick and Co.		39,640	,,
7	Fellows, Morton and Clayton	,,	1,240	,,
7	E. Harrison and Co.	,,	8,000	,,
7	American Line	,,	3,800	,,
7	George B. Taylor	,,	16,800	,,
7	Meade-King, Robinson & Co.	,,	27,120	,,
7	D. Currie and Co.	Lub. Gr.	260	Hamburg
7	C. W. Field and Co.	Lub.	210	Antwerp
	Bristol—			
7	Homelight Oil Co. (Hyrcania)	Lamp	810,000	Batoum
	Cardiff—			
4	Aadnesen	Lub.	200	Christiania
	Hull—			
1	G. Hardy and Co.	,,	260	Antwerp
1	Wilsons and N.E. Co.	,,	1,060	,,
1	T. Wilson, Sons and Co.	,,	2,080	Reval
3	Wilsons and N.E. Co.	,,	520	Hamburg
3	,,	,,	800	Antwerp
4	,,	Varnish Making	400	Hamburg
4	T. Wilson Sons and Co.	Lub.	800	New York
4	,,	,,	38,160	,,
7	W. Gilyott and Co.	,,	1,960	,,
7	Wilsons and N.E. Co.	,,	3,640	Antwerp
	Lynn—			
1/1	Sommerfield and Thomas	Crude	250	Rotterdam
	Manchester—			
1	Liverpool Storage Co.	Lub.	20,540	New York
3	G. B. Taylor	,,	29,000	,,
3	W. Hodgson and Co.	,,	3,640	Riga
3	,,	Lub. Gr.	50	Antwerp
3	J. T. Fletcher and Co.	Lub.	80	,,
3	D. Currie and Co.	,,	2,800	Hamburg
3	Crossley Bros., Ltd.	,,	80	Genoa
	Middlesbro'—			
1	E. Harris and Co.	,,	240	Antwerp
	Newcastle—			
4	Tyne-Tees S.S. Co.	,,	240	,,
5	,,	,,	5,200	Hamburg
	Swansea—			
1	Richards, Turpin and Co.	,,	1,600	New York
	Aberdeen—			
1	W. Graham-Yooll and Co.	Lamp	4,100	Hamburg
1	R. C. Reid and Co.	L. Paste	310	,,
	Glasgow—			
1	Allan Bros. and Co.	Lub.	51,890	Philadel.
2	Anchor Line	,,	56,560	New York
	Grangemouth—			
1	J. Currie and Co.	,,	2,000	Hamburg
1	W. Graham-Yooll and Co.	Lamp	4,000	,,
2	,,	,,	3,960	,,
	Leith—			
1	W. Graham-Yooll and Co.	,,	8,720	,,
1	J. Currie and Co.	Lub.	340	,,
1	,,	,,	280	Bremen
1	,,	,,	800	Hamburg
7	W. Graham-Yooll and Co.	Lamp	4,400	,,
7	G. Gibson and Co.	Lub.	900	Antwerp
	Dublin—			
5	Palgrave, Murphy and Co.	,,	330	,,
	Total for Week		1,639,310	
	Total for the Fortnight		6,372,740	

◆

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The Petroleum Review.

By PAUL DVORKOVITZ.

Vol. XXII. *(New Series.)* February 26th, 1910. No. 471

THE PETROLEUM REVIEW:

The ANNUAL SUBSCRIPTION for both English and Foreign readers is 26s., including Postage. Single Copies may be had at the offices at 1s.

The Editor would esteem it a favour if readers, when communicating with the various firms advertising in our pages, would mention the "Review."

Contributions upon items of interest are always welcomed from subscribers, but in each case these should be accompanied with the name and address of the sender, not necessarily for publication.

Editorial Notes.

The Admiralty and Liquid Fuel. Last week one of the London dailies startled its readers with the "exclusive" announcement that the Admiralty had decided to go in for liquid fuel, and for several days afterwards, by the aid of several interviews, the "exclusive" item of news was utilised for all it was worth. We admit the subject is one of great interest, and quite sufficient to arouse the attention of some of our more enterprising *confreres* on the daily press, but the fact that it is over four years since the Admiralty decided to use liquid fuel upon certain classes of warships, rather takes away the exclusive nature of the information. As far back as 1905 the Review dealt with the subject, for it was at that time that not only did the Admiralty give its voice in favour of oil fuel, but also initiated that policy under which the tank steamer "Petroleum" was bought, and arrangements made for erecting bulk storages at various points round the coast. Since that time oil fuel has been used in ever-increasing quantities by the Admiralty, and the fact that an order has just been placed for something like 100,000 tons for Admiralty needs is in itself evidence that liquid fuel has far passed its experimental stages in regard to its use in the British navy.

Russia's Prospects for Future Petroleum Production. The steady advance which was recorded during each month last year in regard to the volume of output of crude oil from the Baku oil fields is itself suggestive of the fact that Russia is steadily recovering itself in the matter of its production of petroleum. The production from the fields last year was greater than it has been for several years, and the feeling of rest which now pervades the petroleum producing districts, combined with the wave of activity almost everywhere apparent to-day in the search for oil, points unmistakably to a period of real progress before Russia's petroleum industry. The crude oil output of the Grosny fields, too, established a record for 1909, while the remarkable boom which took possession of the prolific district of Maikop during the closing months of the year, and to-day exists in an even greater degree, all suggest that a new era of prosperity has been entered upon. One thing which is particularly noticeable in regard to Baku petroleum production is that the increase last year has been brought about by no tapping of spasmodic fountains, but by steady baling the whole year through, and welcome though oil fountains may be, it is always a sure sign of expansion when, as has been the case this last year, the total crude oil production has been increased, while the yields from fountains has become less.

Canada and the Oil Boom. The oil boom appears to have spread to Canada, where considerable advertising is being done by oil stock "jobbers," with a view to the placing of so-called good investments. From time to time we have pointed out in the Review that, though Canada may have golden opportunities for oil investment in the future, there has, so far as our knowledge goes, been very few concerns placed upon the market whose prospects have been at any time very promising. We know, however, that to-day a very active search is being made in British Columbia and Alberta, and, though as yet no official reports have been issued giving the production of crude oil in these Western provinces, the future gives promise of considerably more success than Canada's past oil history has shewn. Though Canada's crude oil production for last year can only be approximately given, there will be no considerable gain upon the figures of 1908, and, as our readers are aware, the total crude oil output then was even less than nine years ago, while its value was lower than for the past ten years. There is a great deal of truth in what a writer says in our contemporary, the *Oil, Paint and Drug Reporter*, when he remarks that though in Canada there is ample room for the expansion of the oil industry, "there are enough paper companies doing business to-day to discount the future by about ten years." This is a great pity, yet such a state of things has been not infrequently met with in the more prominent fields of the world.

A Serious Attempt to Develop England's Natural Gas and Oil Resources. There has recently been registered a company, under the title of the South of England Natural Gas and Petroleum Co., Ltd., which is to shortly commence serious developments in the Heathfield locality of Sussex—a district associated for a number of years with the production of natural gas. The new company is to take in hand a serious work of developing fields which, in all probability, will become of vast national importance. Therefore, if only for this reason alone, we trust it will be eminently successful. Up to the present, as our readers are probably aware, the natural gas in the Heathfield district, which has been turned to commercial account for many years, has been derived from very shallow boreholes, and it is the intention of the new company, in order to make a thorough test of the territory to deep borings below the Purbeck beds in the gas belt. It is now quite twelve years since the London, Brighton and South Coast Railway bored a well at Heathfield to the shallow depth of 380 feet, yet from that day to this, the supply from this bore, even though it has partially caved in, keeps up a steady and continuous pressure, and is now said to have yielded upwards of 4,000,000 cubic feet of gas which lights the railway station and is also used for heating purposes. One distinct advantage which the present company possess will be the fact that the gentlemen associated with it have close acquaintance and experience with the Heathfield field, which dates back to the sinking of the first gas borehole, and this fact in itself should render the outlook exceedingly encouraging.

We have always had faith in the future development of the Sussex deposits, and to-day our faith is considerably increased by the knowledge of the fact that the developments are now to be directed by a well constructed company and upon those practical lines, which in their very nature suggest distinct success.

THE TIN PLATE MARKET.

Messrs. Norton, Owen & Co., of 4, Bishopsgate Street Within, London, E.C., report under date February 24th, 1910, as follows: —

During the first half of the past fortnight business was quiet, but this week there is considerable enquiry for oil sizes. Prices are unchanged and firm as under, and no easing off is anticipated for some time in the face of the strength of materials and possible difficulties in the Welsh coal field. Whatever happens dearer coal appears, to be a certainty, and the price of coal, of course, materially affects the cost of production of tin plates.

IC	18¾ × 14	124 sheets	110 lbs.	13/9 to 13/10½ per box.
IC	19¼ × 14	120 ,,	110 ,,	13/9 to 13/10½ ,,
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F.o.b. Wales. Tin lining and iron hooping extra.

TO FACILITATE THE EXPORT OF RUSSIAN KEROSENE.

REDUCTION OF THE BAKU-BATOUM RATE.

After several years of patient waiting, the Russian petroleum export trade has recently got an impetus, by the decision of the Russian Government to reduce the rates for export kerosene from Baku to Batoum by seven copecs per pood.

Until the present time, the rate from Baku to Batoum has remained at 19 copecs per pood for several years, during which time the Russian export trade has dwindled to almost vanishing proportions. It will be recollected that Dr. Dvorkovitz made a strong protest against the increasing of the rate some years ago, pointing out as he did that under such circumstances, it was impossible for the Russian export trade to do other than practically fall out of existence. What has since transpired our readers are fully acquainted with.

The important conference, which was held at St. Petersburg at the beginning of the year upon the subject, has evidently done much to cause the government to give immediate attention to this question, for their decision has been given during the past few days. It is that the rate shall in future be 12 copecs per pood—a reduction of seven from the former rate of 19 copecs per pood.

It may be mentioned here that at the Conference at St. Petersburg recently, Mr. P. O. Goukassow urged that the rate should be either 10 or 11 copecs per pood —not more. Therefore the decision of the Government to reduce it to 12 copecs points to their desire to give what assistance they can to the development of the Russian kerosene export trade.

TRINIDAD OIL FIELDS, LIMITED.

As will be seen from another page of this issue, subscriptions are invited for the Trinidad Oil Fields, Limited, a company which has just been formed to acquire from the Trinidad Petroleum Co., Ltd., who are the vendors, their oil and other mineral rights over lands situated in the Guapo and La Brea districts of Trinidad, and comprising approximately 4,000 acres.

The vendor company has for some time been exploiting their territories, and although the several wells they have sunk have only been drilled to shallow depths, they have all struck rich sources of oil. The operations of the new company therefore will be mainly directed to developing these discoveries and to market the products.

The great advantages possessed by Trinidad as a petroleum producing country are enormous, and these have already been recognised by the British Admiralty who favourably view the possibility of their being able to obtain large supplies of oil fuel from the colony.

In the present instance, the company offers 175,000 £1 shares for subscription out of its total capital of £300,000.

CALIFORNIAN PETROLEUM REFINERIES, LIMITED.

EXTRAORDINARY MEETING OF SHAREHOLDERS.

An extraordinary general meeting of the shareholders of the Californian Petroleum Refineries, Ltd., was held at noon yesterday (Friday), at Winchester House, London, E.C., Mr. Charles Symons presiding.

The Chairman explained that the large majority of the shareholders in San Francisco wished to receive the shares in the new company instead of keeping them in London. That being so, and as that company would have to go on spending money and remaining only nominally in existence, the directors thought that voluntary liquidation would be the better course. As a result every shareholder could have shares in the new company—the Alliance Oil Co.—and deal with them as they thought fit.

> "That having regard to the agreement of the 8th day of December, 1909, entered into by this company for the sale of the undertaking and assets of this company in California to the Alliance Oil Co., which agreement was approved by the general meeting of this company, held on the eighth day of December, 1909, it is desirable to wind up this company and accordingly that this company be wound up voluntarily and that Wilfrid Griffiths of 165, Fenchurch Street, E.C., be and he is hereby appointed liquidator for the purpose of such winding up at a fee of one hundred and twenty-five guineas.
>
> "That the said Liquidator be and he is hereby authorised to distribute in specie or kind amongst the contributories of this company in accordance with their respective rights and interests therein 412,750 shares of $1 each of Common Stock in the capital of the Alliance Oil Co. which form part of the consideration for the said sale."

This was seconded and carried unimously, and a vote of thanks to the chairman for presiding closed the meeting.

The Russian Petroleum Industry.

A BRIEF REVIEW OF THE PAST YEAR'S OPERATIONS.

The year 1909 closed for the Russian petroleum industry under considerably more favourable conditions than was expected during the first few months of the year. The production of crude oil in the Baku district was throughout kept at a good average, and in March rose to 41,000,000 poods, a figure not even once reached during the preceding year. From that month onward, the activity in the oil fields considerably increased, and this reached its zenith during August, when the month's crude oil production was near 47,000,000 poods—an output which has not been reached for years. The increased production is due mainly to the greater productivity of the Bebe-Aibat fields, which are now being very actively operated. The figures of production in the fields during the various months of the year are given below, they being placed alongside those for 1908 and 1907, the details being given in poods (62 to the ton):—

A Comprehensive View of the Bebe Aibat Fields.

	1909.	1908.	1907.
January	36,200,000	39,700,000	38,500,000
February	35,600,000	36,500,000	37,700,000
March	41,000,000	39,600,000	40,900,000
April	39,700,000	38,700,000	39,100,000
May	40,600,000	39,900,000	39,500,000
June	41,000,000	37,800,000	40,000,000
July	43,200,000	39,500,000	42,000,000
August	46,700,000	39,600,000	40,200,000
September ..	43,900,000	37,300,000	37,900,000
October	41,900,000	40,000,000	40,000,000
November ..	39,800,000	38,700,000	39,100,000
December ..	41,100,000	39,100,000	41,300,000
Total	490,700,000	466,400,000	476,200,000

The crude oil production for the past year has therefore been more than during any year since 1904. For that year, however, it stood at 614,000,000 poods, so it is easy to see how great has been the decrease in the output of the Baku fields during the meantime.

In spite of the progress made during 1909, and likely to be maintained during the present year, the fact remains that to-day the Baku fields are even producing less crude oil than they were ten years ago. Here are the figures in poods):—

1900	600,700,000	1905	414,700,000
1901	671,200,000	1906	448,900,000
1902	636,500,000	1997	476,200,000
1903	596,600,000	1908	466,400,000
1904	614.600,000	1909	490,700,000

Of deliveries to the interior markets, the statistics for December are not yet published. The exports from Baku for the eleven months amounted to 361,500,000 poods, as against 351,800,000 poods during 1908. The comparison of the production from one side and of the stocks from the other leads to the conclusion that the total deliveries to the interior markets during 1909 were considerably higher than in 1908.

But the increase in the production in the deliveries and in the stocks had very little influence upon the prices. The reasons of the stability of prices are manifold. With the increase in production there was noticeable a considerable increase in the stocks, so that only a part of the surplus went to increase the deliveries to the interior market. At the same time the demand on the interior market in 1909 was not of a very satisfactory extent.

As regards the prospects for the future, they cannot be considered as very promising. From one side the continuous decrease in the boring in the Baku district and the natural exhaustion of the petroliferous areas do not promise considerable increase in the future of the production. No new petroliferous lands are entered, and the new producing districts such as Uchta, Maikop, etc., cannot be expected to influence the markets for some time to come. Thus, for several reasons, prices will be kept at a very good level for some time.

How far the increase in the Baku production will better the position of the Russian petroleum industry on the foreign market, and how this will be influenced by the reduction (already decided upon) in the export tariffs from 19 to 10-12 copecs per pood, is yet hard to predict.

The results of the year's production at Grosny are also very favourable, although the returns for December last are not yet published. Still, the total for the eleven months shews an increase of 4,000,000 poods in comparison with the figures for 1908, notwithstanding the considerable decline in the quantity of fountain oil. Thus without considering the production on other petroliferous areas, Russia in 1909 has produced at least 35,000,000 poods of crude oil more than in 1908.

TRINIDAD OILFIELDS, LIMITED.

(Incorporated under the Companies (Consolidation) Act, 1908.)

A Prospectus has been filed with the Registrar of Joint Stock Companies, which states amongst other things that :—

The Subscription List will open on Monday the 28th day of February, 1910, and close on or before Wednesday the 2nd day of March, 1910. The Minimum Subscription on which the Directors may proceed to allotment is 175,000 Shares.

Authorised Capital	**£300,000**	
Divided into 300,000 Shares of £1 each	***£300,000***	
Issue of 260,000 Shares of £1 each ...	**£260,000,** of which	
85,000	Shares are to be allotted to the Vendors as hereinafter provided	£85,000
175,000	Shares are now offered for subscription at £1 each	£175,000
260,000		£260,000

PAYABLE :—2/6 per share on application, 5/- per share on allotment, and the balance as and when required, in calls not exceeding 5/- per share, at intervals of not less than two months.

Directors.—Corbet Woodall, M.I.C.E., Palace Chambers, Westminster (Governor of the Gas Light and Coke Co.); Hon. Thomas Cochrane, Crawford Priory, Springfield, Fife (Director of the Nobel Dynamite Trust Co., Ltd.); Alexander Duckham, F.C.S., Phœnix Wharf, Millwall, E. (of Alexander Duckham & Co., Ltd., Oil and Chemical Manufacturers); Sir James Pender, Bart., Donhead House, Salisbury (Director of the Metropolitan Electric Supply Co., Ltd.); H. C. B. Underdown, 9, Gracechurch Street, E.C., Merchant (Director of Direct United States Cable Co., Ltd.).

Solicitors.—*For the Company:* Messrs. Mackrell, Maton, Godlee & Quincey, 21, Cannon Street, London, E.C.; *for the Vendors:* Messrs. Macandrew, Wright & Murray, W.S., 9 Albyn Place, Edinburgh.

Brokers.—Messrs. Foster & Braithwaite, 27, Austin Friars, London, E.C.; Messrs. Kerr, Andersons & MacLeod, 149, West George Street, Glasgow.

Bankers.—The London City and Midland Bank, Ltd., Threadneedle Street, E.C., and Branches; The Royal Bank of Scotland, Edinburgh, Glasgow and London, and Branches.

Auditors.—Messrs. Deloitte, Plender, Griffiths & Co., 5, London Wall Buildings, E.C.

Consulting Engineers.—Messrs. Thompson & Hunter, 3, Lombard Street, London, E.C.

Secretary and Temporary Offices.—R. G. Longcroft, F.C.A., LL.B., 41, Bishopsgate Street Within, E.C.

This Company is formed for the purpose of acquiring from the Vendors (The Trinidad Petroleum Company, Limited, of 41, Bishopsgate Street Within, London, E.C.) their oil and other mineral rights in and over lands situated in the Guapo and La Brea Districts in the island of Trinidad, aggregating 3,791 acres, made up as under:—Crown Lands, 3,200 acres; Adventure Estate, 273 acres; La Fortunée Estate, 318 acres; Total, 3,791 acres.

The Vendors have obtained from the Trinidad Government a lease of the crude oil, its bituminous minerals (including asphalt) and natural gas, in the Crown Lands before mentioned, for a term of 21 years from the 1st July, 1909, with a right of renewal thereof on the expiration of that period for a further term of 21 years.

The Vendors have further acquired in perpetuity and on favourable terms all the oil and mineral rights in the Adventure Estate and have also the right to take portions of the surface of the estate, extending to about 60 acres, on lease for a term of 99 years. This secures easy access to the Crown Lands included in the Government lease and to the sea for the shipment of oil.

The Vendors have also acquired in perpetuity and on favourable terms from the registered proprietors of the La Fortunee Estate (which lies immediately to the west of the Adventure Estate), the oil and other mineral rights in La Fortunée and the freehold of 110 acres of the surface of this estate. A claim has been made against the last-mentioned proprietors to one undivided third share of the La Fortunee Estate (which consists as above stated of 318 acres), and this is at present the subject of proceedings in the Trinidad Courts between the claimant and those proprietors. The Company will take the rights in this estate subject to the right of the claimant (if any), but will be entitled to the benefit of all remedies by the Vendors against the said registered proprietors under their covenants for title.

The Vendors have expended considerable sums in ascertaining and proving the existence of oil in paying quantities in the lands above mentioned, and have at the present time three wells which have struck rich sources of oil at depths of 712 feet, 672 feet, and 520 feet respectively. It will not be needful, therefore, for the Company to engage in a speculative search for oil; all that will be necessary for it to do will be to develop the discoveries of oil already made and market the product.

The favourable position which the Trinidad Oilfield occupies relatively to other well-known oil fields will be at once seen when it is stated that no part of the properties to be acquired by this Company is distant more than six miles from the sea, as compared with hundreds of miles which separate the Russian, Roumanian, and most of the American oil fields from their ports of shipment. The result of this advantage of position is that the cost of placing the oil on the seaboard will be extremely low, being estimated at 6d. a ton, as compared with 7s. and upwards ruling on other well-known oil fields.

Reports by Messrs. Thompson & Hunter, and also by Sir Boverton Redwood, states that the oil found in the Company's wells compares very favourably with that of other oil fields, its calorific value being specially notable.

The price to be paid by the Company to the Vendors is £153,000, payable as to £68,000 in cash and as to £85,000 in fully-paid-up shares of £1 each, the Company undertaking the obligations of the Vendors in respect of the said mineral and other rights and property. The Vendors are also entitled to the call of the 40,000 unissued Shares of the Company for two years from the 15th March, 1910, at a premium of 10s. per Share, which right has been transferred to the Underwriters in accordance with the Agreement hereinafter mentioned. The purchase price includes modern drilling plant, casing, steam engines and boilers, pumps, pipes, stores, and tools, furnished dwellings, storehouses, and a light railway, and the wells already sunk. It also includes the expenditure which has been made by the Vendors in surveying and grading a road leading from the coast into the Crown lands, with bridges, conduits, etc.

The present issue of Shares will provide a sum of about £100,000 for working capital, which the Directors consider ample to bring the Company into a dividend-paying condition.

The demand for oil fuel for marine and railway purposes is rapidly increasing owing to its recognised advantages over coal—especially for war vessels—and in this direction a market which is practically inexhaustible is being opened up. **The advantages to the British Admiralty of being able to obtain a supply of fuel oil from a British Colony** comparatively free from danger of interruption is apparent, and has been recognised by the Admiralty. Consequently, **in terms of the Government Lease before mentioned, the lessees are under agreement to supply oil fuel to the Admiralty,** when they are in a position and requested to do so, on terms which are considered fair in all respects, such oil fuel to be delivered at the Company's shipping place at Guapo. **Contracts for the supply of oil fuel to the Admiralty may therefore be confidently anticipated.**

The consumption of oil fuel on Mexican and South-American Railways is very largely increasing, and here again large contracts may be expected.

The Statistical Abstract of the British Colonies states that 550,000 gallons of oil and kerosene are imported annually into Trinidad. The import duty is 9d. per gallon and the nett revenue from the duty about £20,000 per annum.

The neighbouring Island of Barbados imports 400,000 gallons per annum; Jamaica, 821,929 gallons; British Guiana, 705,710 gallons; and Bermuda, 300,000 gallons. The price of fuel at all these places is very high, and owing to the short sea passage it is anticipated that no other country can compete with Trinidad for the local West Indian market.

Messrs. Thomson & Hunter, Consulting Engineers and Petroleum Experts, of 3, Lombard Street, E.C., state that the cost of production should not, in their opinion, exceed 15s. a ton, and may easily fall to 5s. if gas is employed as fuel, and all the wells can be pumped. They estimate that towards the end of the first year 3,000 tons a month should be obtained, and towards the end of the second year 6,000 tons a month, which, at an average profit of only 15s. a ton, would yield £54,000, or sufficient to pay a very substantial dividend on the whole of the Company's share capital.

There is an ample supply of labour in the Island.

Messrs. Thompson and Hunter also report as follows:—

"The strata composing the oil-bearing series have a thickness "of fully 1,000 feet and consist of alternate beds of clay, sandy "clays, occasional beds of hard sand and oil sands, some of which "latter attain a thickness of 50 feet; many of the oil sands out-"cropping on the coast are heavily impregnated with petroleum, "although exposed to the action of water at each tide; and the sea "is frequently covered with a film of oil for miles along the coast "line."

Trial wells sunk by the vendors have amply demonstrated the petroliferous character of the Guapo anticline.

A series of boreholes (aggregating in depth upwards of 1,200 feet), sunk with hand drill, penetrated oil sands and yielded petroleum, which, in the case of four of these wells, rose to the surface and overflowed.

The three deepest wells (sunk by machine drill), after yielding oil at various depths, struck rich sources at 712 feet, 672 feet and 520 feet respectively.

Copies of the Full Prospectus, upon the terms of which applications will alone be received, and Forms of Application can be obtained at the Offices of the Company, or from the Solicitors or Brokers.

THE PETROLEUM INDUSTRY IN JAPAN.

The Japanese Mining Department has just published a very interesting statistical report dealing with the mining industry of Japan, in which appears the following information respecting the progress of the petroleum industry in that country. The extraction of petroleum occupies the third place in the mining industry of Japan, following that of coal and copper. The quantities of the crude oil produced for the last twelve years were as as follows :—

	Tons.		Tons.
1896 ..	.. 29,772	1902 ..	.. 125,548
1897 ..	.. 33,032	1903 ..	.. 152,160
1898 ..	.. 40,106	1904 ..	.. 177,335
1899 ..	.. 67,812	1905 ..	.. 187,376
1900 ..	.. 109,501	1906 ..	.. 216,650
1901 ..	.. 140,927	1907 ..	.. 261,143

Amase. The Home of the Nippon Oil Company.

Thus the production of petroleum in Japan has for the past twelve years increased from 29,772 tons to 261,143 tons, or was in 1907 nine times as large as in 1896.

The principal oil producing province, as our readers are aware, is that of Niigata, in which the production amounted to 176,681 tons in 1904, 185,527 in 1905, 214,838 in 1906, and 249,210 tons in 1907. The other oil-bearing districts are as yet of no account, with the only exception of Taiwan, where the crude oil production was 8,394 tons in 1907.

The number of new companies and co-operative syndicates established in the province of Niigata is as follows :—

Companies.

	Number.	Capital in Shares. £	Paid up Capital. £	Number of Shares.
1905	47	2,833,496	1,229,096	583,798
1906	31	2,451,500	1,151,416	496,600
1907	14	2,960,000	1,836,969	599,500
1908	12	2,950,000	1,220,237	392,500

Co-operative Syndicates

	Number.	Capital. £	Paid up Capital. £	Parts.
1905	64	329,380	210,320	284,150
1906	90	609,370	308,380	1,131,000
1907	54	418,000	260,130	999,280
1908	54	356,982	203,942	893,860

There is a great tendency to amalgamate the several interests in the industry, a large number of small concerns being more and more brought into large concerns or bought up by the influential companies.

But notwithstanding the rapid growth of production, the demand for oil in the country grows at a much more rapid rate. For instance, the consumption of illuminating oil alone is about 300,000 tons a year, and that of lubricating oil about 75,000 tons. Naturally, the local production is far from satisfying this demand, and large quantities of petroleum products are imported into the country each year.

The following table shews the imports into and the production of the country in regard to illuminating oil since 1898 :—

Year.	Imported. Tons.	Production. Tons.	Imports. % of Total.	Production. % of Total.
1898	202,512	23,294	90	10
1899	156,743	34,554	82	18
1900	202,731	55,712	78	22
1901	206,356	73,315	74	26
1902	224,391	71,585	76	24
1903	178,480	71,786	71	29
1904	244,694	76,590	76	24
1905	175,857	80,477	69	31
1906	178,056	103,314	63	37
1907	210,497	115,547	64	36
1908	216,623	99.976	68	32

The above table shews that since 1898 the imports have been practically stationary, while the quantity of home refined oil has steadily increased.

About 60 per cent. of the total quantity of imported illuminating oil is of American origin and about 25 per cent. of Russian origin.

THE TEXAS COMPANY,
Transporters, Refiners and Distributors of Petroleum and its Products.
General Offices :—HOUSTON, TEXAS. Export Department :—Whitehall Building, NEW YORK.

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LUBRICATING OILS. *Highest Grades. Uniform Quality.*
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London Offices:—BILLITER BUILDINGS, 22 BILLITER STREET, E.C.

MISCELLANEA.

WORTHLESS STOCKS MARKETED IN CALIFORNIA.

We learn from the *San Francisco Examiner*, upon the authority of Mr. L. E. Anbrey, the State Mineralogist, that several unscrupulous promoters in California, are taking advantage of the present favourable moment on the investment market to sell stock in worthless companies to unsuspecting persons. Mr. Aubrey states that he has his eye upon at least fourteen companies in California, many of them being in San Francisbo, which do no look genuine. Their affairs are being investigated, and if his suspicions turn out to be correct, he intends to publicly denounce those oil concerns, and warn the public to be on their guard against them.

PETROLEUM AND ITS SOURCES.

According to Dr. David T. Day, of the United States Geological Survey, who addressed the Buffalo Society of Natural Sciences recently on "Petroleum and its Sources," the difference in colour and specific gravity found in oils in New York and Pennsylvania is due to the diffusion of the oils upward through dry shales.

By views thrown on a screen he illustrated how oil, when it touches shale, is soaked up by it provided the shale is not too moist, and that when the oil is soaked up asphalt and sulphur compounds remain. As to the origin of oil, he favoured the carbide theory as against the theory that it formed from animal and vegetable remains. Accepting the carbide theory, the formation of oil is a continuous process, and there is little danger of the product giving out unless it can be used more rapidly than it forms.

The knowledge gained at Niagara Falls of chemical action at high temperature in the manufacture of carborundum and calcium, he said, shewed that the carbides were the first substance formed when the earth cooled sufficiently to admit of a chemical combination. He said the kerosene manufactured in one year was sufficient to keep one lamp burning for 150,000,000 years.

THE PRODUCTION IN GROSNY DURING NOVEMBER.

The total production of crude oil in the Grosny district during November amounted to 4,983,999 poods, as against 5,104,325 poods in October and 4,131,800 poods in November, 1908. This unfavourable result of the last but one month of the year will not, however, change the favourable report of the production in 1909 to that of 1908; up to December 1st the surplus in the production is about 4,000,000 poods. Of the total production during the month 313,205 poods were obtained from spouters, as against 332,675 poods in October, and by baling 4,650,724 poods, as against 4,791,120 poods in October.

SOCIÉTÉ FRANCAISE DE PETROLE, LTD.

The report for the four weeks ended February 12th was as follows:—Borehole No. 1, Gold Coast: On January 24th through a movement of the strata the casing was deflected from the vertical at a point 43 feet from the bottom of the boring. The manager cables to-day that he has cut the casing at a depth of 60 feet, so as to utilise the oil encountered at that depth, and that he is moving the rig to a safe distance from this site with a view to the recommencement of drilling. Shallow oil has also been encountered in two prospecting boreholes sunk 400 yards east and west respectively from No. 1. Borehole No. 2, Gold Coast: Commenced January 26th. Depth, 75 feet; formation, soft red sand. Borehole No. 6, Ivory Coast: Owing to fishing trouble no progress has been made since the date of the last report.

THE UNITED STATES AND ITS LIQUID FUEL SUPPLY.

The Review learns upon good authority from Washington that measures are to be taken by the United States Government in order to have a permanent and large stock of liquid fuel for the needs of their navy. A measure is shortly to be introduced in the Senate which seeks to provide the necessary storage facilities for this Government reserve supply. The two most important sections of the Bill are the third and fifth, the former stating:—

"That the Secretary of the Navy shall establish buying agencies at such places in the Mid-Continent oil fields as shall be advisable, necessary and convenient for the oil producers; there shall be posted each day, Sundays and legal holidays excepted, the price per barrel which the United States Navy will pay for oil that day; the oil to be taken from the tanks of the oil producers who may have already connected their tanks to the gathering lines of the United States Navy; such price shall be open and uniform, and paid without discrimination in favour of or against any oil producer until a new price shall be posted."

The fifth section states "that the Secretary of the Navy is authorised and directed to purchase, as fast as the market conditions will justify, 25,000,000 barrels of oil for the reserve supply of the United States Navy before the great flood of oil production from the Mid-Continent oil field is over, in order that the said 25,000,000 barrels of the reserve supply of the United States Navy may be acquired cheaply."

THE PRODUCTION OF THE ROUMANIAN REFINERIES DURING DECEMBER.

The following table shews the quantities of petroleum products manufactured in the Roumanian refineries during December, quantities delivered for inner consumption, consumed as fuel in the refineries, and the stocks at the depôts (in tons):—

	Benzine.	Illum. Oil.	Lub. Oil.	Residuals.	Total.
In store on Nov. 30th ..	40,850	75,927	19,698	128,875	265,350
Manufactured in Dec...	19,250	22,072	2,585	49,814	93,721
Delivered for Inner Consumption	1,571	4,692	1,650	31,177	39,090
Used as fuel in the refineries	11	—	2	9,116	9,129
Left in store at the depôts on Dec. 31st..	40,072	79,613	20,763	136,441	276,889

THE LEASING OF AMERICAN PUBLIC OIL LANDS.

STATEMENT BY DR. C. W. HAYES.

In connection with the recent action of the administration in withdrawing from entry over 3,000,000 acres of public petroleum lands in California, Wyoming, Utah, and Oregon, a statement is given out by Dr. C. W. Hayes, Chief Geologist of the United States Geological Survey, which, in view of its importance, we herewith publish in full. It is as under: —

To remedy the present unsatisfactory conditions by which public oil lands have to be entered under a law framed primarily to provide for placer-gold mining entries, it is generally admitted by those interested in the economical development of oil lands that a radical revision of the American mining law is necessary. Anticipating that Congress will recognise and meet this evident need, the Secretary of the Interior has withdrawn from all forms of entry all vacant public lands designated by the Geological Survey as probably containing oil and gas. This executive action, is, however, only temporary, and is intended to preserve the *status quo* until Congress acts.

When the present placer-mining law was enacted, probably no one in Congress or out had any idea that it would ever be made to cover mineral deposits so far removed in every essential characteristic from gold-bearing gravels as are oil and gas. Yet, when oil was found on the public lands, no other law was on the statute books, except the placer law, under which title to it could be acquired, and this anomalous and wholly unsatisfactory condition still holds—to the great detriment both of the Government and of the oil industry.

The fundamental basis of a location under the placer law is discovery, and the courts have held uniformly that there can be no legal location until there has been a discovery. But in the nature of the case there can be no discovery of oil until a well has been drilled at great expense, since ordinarily there are no surface indications of the oil, and the well must be drilled upon purely geological inference. It follows therefore that the driller will be wholly unprotected against rival claimants to the land until he has completed his first well, or he will be forced to make a false claim to discovery on which to base his location.

One very common method of evading the law is to locate oil under the guise of a gypsum claim. In many of the California oil-land fields the surface soil contains a small amount of gypsum, although rarely in sufficient quantity or purity to be profitably mined, even if favourably located for transportation and market. It affords a pretext, however, for a location under the placer law, and large numbers of claims have been patented where it is a matter of common knowledge that the real object is to acquire title to the oil. In this way land worth thousands of dollars an acre has been acquired from the Government for $2·50 an acre, and this without oil development. Moreover, it is not generally the man of small means, but rather the wealthy corporation, that resorts to this subterfuge to secure title.

Although many of the oil fields in the public-land states, and particularly those in California, are in regions wholly devoid of agricultural possibilities, no sooner is a successful well drilled than the entire district is covered by homestead and scrip entries, the purpose of which is to secure title to the oil under cover of the agricultural land laws. It is to meet these conditions that a thorough revision of the law is needed.

Any law which will adequately meet the requirements of the case must recognise the fundamental difference between oil and gas and other minerals; namely, mobility. These elusive products can be drawn from a distance underground across boundary lines; and exclusive title to the product is acquired only after it reaches the surface. It follows, therefore, that oil can be disposed of by the Government or other owner of the land in which it occurs only as a commodity, and not in terms of acres, like coal or other minerals occupying fixed locations. This difference is so well recognised that it has determined the leasing system which is practically universal in all the oil fields where the land is in private ownership. The Government cannot do better than to adopt the plan which has been worked out through long experience, and, where the holdings are sufficiently large, found thoroughly satisfactory, both to the oil operator and to the private land owner. Why should not the Government as a land owner deal directly with the producer rather than through the intervention of a middleman to whom title to the land has passed?

Any ideal or practical law must further recognise the fact that actual discovery involves heavy expenditure and considerable time, and that the prospector must be adequately protected in his investment before as well as after the discovery is made. The area to which he is given a preferred right must therefore be sufficiently large to justify his initial heavy investment, and in such compact shape as to protect his discovery from encroachment by drilling on subsequent entries.

A well-considered leasing law will give certain incidental advantages of great importance both to the Government and to the oil operator. It will constitute the most effective means for the conservation of the oil and gas resources of the country by enabling the Government to regulate developments so as to prevent much of the criminal waste now prevalent.

Under the present system the owner of a 20-acre placer claim is compelled to drill and pump the oil from his land with all possible speed, regardless of transportation facilities or market, for otherwise his competitors on adjoining claims will take a large share of it away from him. In the resulting feverish exploitation half-a-dozen or more wells may be drilled when one would have secured the same amount of oil, a serious economic waste to the nation and a heavy tax on the ultimate consumer. Also, unrestricted drilling by careless or ignorant operators may ruin a valuable field by admitting water to the oil sand from a higher or lower water-bearing stratum. Many examples of criminal waste resulting from the unrestricted exploitation of oil fields might be cited.

The Government is not only the largest owner of oil lands, but it is likely to be the largest consumer. The six largest battleships in commission or under construction in the American navy are equipped for the use of either oil or coal, and the 14 largest destroyers use oil exclusively. The question of fuel supply for these vessels is certain to become an exceedingly important one in the near future, and the law should provide a means of perpetuating a supply for this certain future need.

The fact is gaining recognition that the natural resources remaining in the possession of the Government are the heritage of the whole people, and the idea that they should be economically utilised for the general good, rather than exploited for the enrichment of a few individuals, is rapidly crystallising into public opinion. The enactment by Congress of a law providing for the leasing of oil lands will be a logical and much-needed action in the Government's management of its great petroleum property.

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ROUMANIAN PRODUCTION DURING DECEMBER.

The Roumanian production during December, which as already announced, amounted to 119,476 tons, as against 108,508 tons in November, was obtained from the various fields (in tons) :—

Prahova District—	December.	November.
Bustenari-Calinet-Burloi	29,739	28,152
Campina-Poiana	32,193	31,080
Moreni	37,143	27,299
Baicoi-Tintea	12,913	14,328
Other Fields	945	1,179
Total for Prahova District ..	112,933	102,038
,, Dambovitza District ..	2,896	2,738
,, Buzeu District	2,077	2,267
,, Bacau District	1,570	1,465
Total	119,476	108,508

BAKU STATISTICS FOR NOVEMBER.

The production at the Baku fields during December (as already announced in the Review) amounted to 41,097,000 poods, as against 39,789,000 poods in November, 1909, and 39,100,000 poods in December, 1908. The refining of petroleum products in November, 1909, compared with November, 1908, was as follows (in poods) :—

	1909.	1908.
Illuminating oil	6,933,000	8,466,000
Lubricating oil	2,327,000	1,804,000
Residuals	14,510,000	19,942,000
Benzine	137,000	23,000
Other products	2,501,000	2,751,000
Total	26,408,000	27,986,000

Thus the activity of the refineries during November shews a considerable decrease as compared with the corresponding month during 1908.

The exports from Baku were as follows (in poods) :—

	November, 1909.	October, 1909	November, 1908.
Illuminating oil ..	5,895,000	8,485,000	7,237,000
Including those by Sea	2,569,000	5,537,000	1,101,000
Lubricating oil ..	868,000	1,496,000	1,029,000
Including those by Sea	54,000	366,000	43,000
Residuals	3,844,000	18,357,000	1,430,000
Including those by Sea	3,265,000	17,615,000	1,320,000
Crude oil	2,048,000	4,127,000	1,986,000
Including those by Sea	863,000	2,994,000	398,000
Benzine	71,000	83,000	53,000
Total	12,726,000	32,548,000	11,735,000

The considerable decrease in exports from Baku against those in October is due to the close of navigation. As compared with the exports for November, 1908 those for November, 1909, shew an increase of about three-quarter of a million poods.

As regards the stocks, their position can be seen from the following figures, representing the quantities in stock in Baku at the end of the month (in poods) :—

	November, 1909.	October, 1909.	November, 1908.
Crude oil on the fields .	?	6,900,000	8,600,000
Crude oil in the refineries	16,600,000	13,100,000	6,900,000
Illuminating oil ..	6,700,000	5,800,000	4,800,000
Lubricating oil ..	3,100,000	2,600,000	2,000,000
Residuals	26,900,000	14,100,000	27,100,000
Total	53,300,000	35 600,000	40,800,000

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THE PETROLEUM TRADE IN GERMANY DURING 1909.

The most prominent fact in the history of the petroleum trade in Germany during 1909 was the war between the Americans and the Austrians for the domination of the German market. At the end of 1908 the position of the Austrian petroleum industry was so bad that there seemed to be no hope whatever, and it was a widespread opinion that the only means of saving the Austrian industry lay in the creation of a State monopoly of the refining of as well as of the general commerce in petroleum.

But, contrary to all expectations, the year 1909 brought forward an extraordinary increase of the Austrian petroleum imports, principally due to the endeavours and the skilful manipulations of the Actiengesellschaft für Oesterreichische und Ungarische Mineraloelprodukte, and then to a better refining of Austrian petroleum.

Germany's total imports of petroleum and products during the year amounted to 1,496,000 tons, as against 1,573,000 tons in 1908, thus shewing a decrease of 77,000 tons, or about 5 per cent. The total value of the imported products amounted to 127,000,000 marks, as against 131,000,000 marks during 1908.

The following table shews the nature and the origin of the imported products (in tons): –

	1909.	1908.
United States—		
Crude oil	15,152	18,103
Illuminating oil	747,749	828,650
Lubricating oils	100,314	99,053
Benzine	27,230	231
Various refined oils	1,065	398
Russia—		
Crude oil	—	—
Illuminating oil	41,395	47,369
Lubricating oil	86,411	88,511
Benzine	12,110	12,360
Various refined oils	—	—
Roumania—		
Crude oil	—	—
Illuminating oil	31,480	8,750
Lubricating oil	—	—
Benzine	14,429	21,834
Various refined oils	—	—
Galicia—		
Crude oil	4,976	6,090
Illuminating oil	131,181	131,032
Lubricating oil	27,641	26,711
Benzine	8,721	9,060
Various refined oils	3,921	5,883
Dutch Indies—		
Crude oil	10,821	10,561
Illuminating oil	—	—
Lubricating oil	—	—
Benzine	71,249	63,740
Various refined oils	—	837

From this table the following conclusions are evident:—(1) Decrease in the total imports; (2) decrease in the imports of American illuminating; (3) increase in the imports of Austrian and Roumanian illuminating oil; and (4) increase in the imports of benzine.

The decrease in the imports is especially noticeable with regard to illuminating and crude oil. As regards the former, it must be attributed solely to the falling off in the consumption of illuminating oil, as there was no increase in the German production at all.

With regard to benzine, the first place in the imports is taken by the Dutch Indies, the second by the United States, and the third by Roumania, followed by Russia and Galicia.

THE ROUMANIAN PETROLEUM EXPORT TRADE IN 1909.

The export trade of Roumania in regard to petroleum products during 1909 was less active than during the preceding year, the quantities exported being 420,051 tons, as against 460,704 tons in 1908. The decrease during 1909, as compared with 1908, was therefore about 9 per cent. The following were the exports of the various products (in tons):—

	1909.	1908.	Increase or decrease.
Crude oil, gas oil, lubricating oil and residuals	49,715	76,196	– 26,481
Illuminating oil	261,637	262,176	– 539
Benzine	108,216	122,332	– 14,116
Paraffin scale	483	—	+ 483
Total	420,051	460,704	– 40,653

The decrease, as can be seen from the above table, affected all the products classified in the first group, and then benzine, while the exports of illuminating oil were practically the same as during 1908. The decrease in the exports has naturally affected the situation on the home market, and the stocks in the depôts have considerably increased. For instance, at the end of 1908 there were 160,000 tons of various products, that is including the stocks at the refineries and the export installation, while at the end of 1909 they amounted to 277,000 tons, or an increase of 117,000 tons. The largest part of this increase falls to the stock of residuals, for this has risen from 51,000 tons at the end of 1908 to 136,000 tons (or 85,000 tons more) at the end of 1909.

The increase in the general production on the fields of Tintea and Moreni, and a corresponding decrease in that of the Bustenari fields, has largely contributed to the increase in the stocks of residuals, as Tintea and Moreni crude oil contains a larger percentage of residuals than that of the Bustenari district.

CLASSIFIED IMPORTS INTO UNITED KINGDOM UP TO FEBRUARY 21st, 1910.

IN GALLONS.

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Country.	Illuminating.		Lubricating.		Residuals.		Gas Oil. (Solar)		Benzine.		Fuel Oil.		Other Descriptions.		Totals.	
	Since Feb. 7.	From Jan. 1.	Since Feb. 7.	From Jan. 1.	Since Feb. 7.	From Jan. 1.	Since Feb. 7.	From Jan. 1.	Since Feb. 7.	From Jan. 1.	Since Feb. 7.	From Jan. 1.	Since Feb. 7.	From Jan. 1.	Since Feb. 7.	From Jan. 1.
Austria ...	—	—	13.500	21,500	—	—	—	—	—	—	—	—	—	—	13,500	21,500
Belgium ...	—	—	18,050	68,550	—	—	—	—	—	—	—	—	1,290	1,800	19,340	70,350
Canada ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dutch India.	—	—	—	—	—	—	—	—	—	3,833,870	—	—	—	—	—	3,833,870
Germany ...	55.190	149,750	35,890	158,480	—	2,000	—	—	—	—	—	4,840	—	3,200	91,080	318,270
Holland ...	240	530	60	630	—	—	—	—	—	361,450	—	—	2,200	4,470	2,500	367,080
Roumania ...	—	—	—	—	134,750	134,750	—	—	—	950,400	—	—	—	—	134,750	1,085,150
Russia ...	—	810,000	1,210,400	1,226,360	—	—	—	—	—	—	—	—	—	240	1,210,400	2,036,600
U.S.A. ...	7,950,310	11,413,070	1,530,320	6,513,790	16,380	44,500	2,916,900	8,290,950	1,703,950	1,703,950	456,000	1,134,180	8,140	52,260	14.582,000	29,152,700
Other Countries	480,270	480,270	2,520	3,760	—	—	—	—	194,930	194,930	—	—	—	1,600	677,720	680,560
	8,486,010	12,853,620	2,810,740	7,993,070	151,130	181,250	2,916,900	8,290,950	1,898,880	7,044,600	456,000	1,139,020	11,630	63,570	16,731,290	37,566,080

NOTES FROM THE OIL FIELDS.

RUSSIAN.

Exports to Turkey.—The exports of Russian illuminating oil to Turkey during 1909 decreased by 56,000 tons, as against the exports during 1908, in favour of American and Roumanian oil.

A Special Committee has been formed at the Ministry of Finance to decide the question of establishing at Baku an independent administration to deal with all questions relating to the petroleum industry.

Loss of Oil through Leakage.—The total losses of oil during 1909, while being exported from Baku by rail, amounted to 117,320 poods of fuel oil, 92,500 poods of crude oil, 78,900 poods of kerosene, 168,200 poods of lubricating, and 4,500 poods of benzine.

Russian Refined Oil Abroad.—Although England, Belgium, and Germany are now only slightly interested in Russian oil it finds good markets in other countries. For instance, quite recently a cargo of 224,000 poods was loaded for Portugal, one of 220,000 poods for Alexandria, and two cargoes of 465,000 poods for France.

The Surakhany Spouter.—A spouter recently broke out on plot No. 18 of Messrs. Benkendorf's property at Surakhany from a well 600 feet deep. The first few days the well spouted about 400,000 poods a day, and then after a short interval about 300,000 poods a day. The spouter is still active, yielding about 100,000 poods daily.

Pipe Lines in Kuban.—At the seance of the 21st of January of the Siezd of the Kubanski Petroleum Industriels eight demands for new pipe lines were considered. Of these projected pipe lines one will be laid on from the Maikop fields to Tuapse, another from the same fields to the Enem, and a third one will connect different fields one with another.

Reorganisation of Bebe-Eibat Company.—The Moscow-Volga Petroleum Trading Co., Bebe-Eibat, has obtained permission from the Ministry of Commerce for the financial reorganisation of the enterprise. Out of the 2,400,000 roubles of the capital 1,920,000 roubles are taken off for covering the losses. New shares for 520,000 are issued, so that the new capital of the company will be 1,000,000 roubles.

Boring by the State at Maikop.—The Treasury intends to begin boring on an extensive scale at Maikop district in view of establishing in a positive and quite defined way the importance of the district for the petroleum industry of the country. As an experiment the Treasury will spend for boring 60,000 roubles, and if the results prove satisfactory the Treasury is going to organise exploration upon a still larger scope.

Maikop.—The office of the Mining Engineer of Maikop is being inundated with demands for certificates for plots declared or to be declared by the petitioners. In order to bring all the declared plots on the official map of the district, delivery of any certificates is now postponed until the new order. All the maps of the petroliferous district now in circulation are declared to be of little or no value, as they are all issued by private persons.

AMERICAN.

Californian Gushers.—Several wells of the gusher type have recently been brought in in the Sunset Midway field of California. The majority of these are flowing over 2,000 barrels per day.

Progress of the New Trunk Pipe Line.—Of the 150 miles of the new trunk pipe line which is being laid through Oklahoma by the Oklahoma Pipe Line Co., one-half has just been completed.

The Union Oil Company.—The total dividends paid by the Union Oil Co. of California, whose report appears upon other pages of this issue, have amounted to approximately 22,000,000 dollars.

Californian Oil Dividends.—During January the dividends paid by the more important companies operating in the Californian oil fields amounted to 614,000 dollars. For the same month the Mexican Petroleum Co. (of California) paid 87,000 dollars in dividends, thus bringing the total disbursement for the month among Californian investors to over 700,000 dollars.

January Shipments from Port Arthur.—During January there were shipped from Port Arthur 165,000 barrels of crude oil and 714,000 barrels of refined products.

Government Naval Oil Station.—The United States Government is following in the wake of the English Government by erecting bulk oil storage depôts at various points around the coast. The first naval oil depôt to be completed is at Narragansett, where the storage capacity will be for over 1,000,000 gallons.

A Standard Gusher.—The Standard Oil Co. recently brought in a well in the Californian fields which is now producing 4,000 barrels daily. The well was started with 15-inch casing, but after many difficulties arising from caving and water, the size of the pipe had to be so frequently reduced that the well was finished with 3-inch casing.

Mexico and Liquid Fuel.—In future liquid fuel is to be admitted free of duty into Mexico, when it is to be used for locomotive needs. This action has been taken in order that no difficulty may be placed in the way of the various railroad companies who have changed their locomotives to burn liquid fuel, although now Mexico cannot supply it.

The Texas Company's Activity.—The *Oil Investors' Journal* states that the Texas Co. is preparing to erect a refinery south of Tulsa, Oklahoma. It is now extending its storage farm at Clinton, so that it will eventually have a capacity for nearly 1,500,000 barrels. The *Journal* adds, the operations of the Texas Co. in this country have been rapidly growing in magnitude during the past twelve months, and the indications are that this growth is to be steadily maintained.

ROUMANIAN.

Exports in 1909.—The exportation of petroleum products during 1909 amounted to 420,051 tons, as against 460,704 tons in 1908, shewing a decrease of 9 per cent.

The Petrolul.—At an extraordinary meeting of this company it has been decided to raise the capital of the company from 2,000,000 francs to 3,000,000, divided in 15,000 shares of 200 francs each.

Moreni.—The production at Moreni shews a slight decrease. The Regatul Roman now produces from 700 to 750 tons per day; the Romano-American from 250 to 280 tons, and the Astra from 260 to 280 tons.

Sale of a Refinery.—The refinery belonging to Mr. Ch. Paraskeva at Ploeshti has been bought by Mr. Greeven, at a price of 250,000 francs. The refinery is going to be enlarged, and provided with new machinery.

The International.—An issue of 5,250 shares at 150 florins, of a value of 787,500 florins, and 791 5 per cent. debentures, of a value of 791,000 florins, has been made by the firm of Messrs. Zoller and Co. at Amsterdam.

Duty on Petroleum.—The duty on petroleum has brought to the Roumanian treasury from 1901 to 1909 the sum of 24,950,273 francs. The quantity of petroleum treated in the same period in the refineries amounted to 4,714,035 tons.

New Pipe Lines.—The Concordia has recently laid down a new pipe line from Matitza to the Magurele station on the line of Ploeshti-Valeni, and the Credit Petrolifer has increased by partially doubling the line, the transport power of their pipe line Tzintea-Gageni.

Duty Free Boring Materials.—The general directors of the Roumanian custom house draws the attention of the Roumanian manufacturers and oil producers that all duty free materials imported into the country for boring purposes must be sent directly to the fields, and that iron sheets for making drilling tubes must exceed in thickness 3 millimetres.

The Disconto-Bleichroder.—Following the dissolution of the general direction of the petroliferous enterprises of the firms Disconto Gesellschaft and S. Bleichroder, the firms belonging to this group will in future be managed by their individual directions, and namely, the Concordia by Dr. Stange and Engineer Feslau, the Vega by Dr. Edeleanu and Mr. Szilasi, and the Credit Petrolifer by Mr. Szilasi and Mr. F. Vollmer.

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Pinna	**8,000**	**Caucasian**	**6,600**	**Luciline**	**5,200**
Danubian	**6,900**	**Lutetian**	**6,300**	**Le Coq**	**4,700**
Servian	**6,700**	**Terek**	**5,200**	**Rock Light**	**4,100**
Carpathian	**6.700**	**Balakani**	**5,200**	**Lux**	**2,900**
Roumanian	**6,700**	**Oriflamme**	**5,200**		

Brokers for Building, Purchasing,
Selling and Chartering Oil Tank Steamers.

LATEST QUOTATIONS OF PETROLEUM SHARES.

ENGLISH COMPANIES.

This list is restricted to companies who have paid dividends or who are producers.

Company.	Capital Paid Up.	Value of Shares.	Latest Prices.
Assam Oil	£310,000	£1	17/0-18/0
Bibi-Eybat Petroleum Co.	£380,000	£1	4/6-5/6
Californian Oilfields	£400,000	£1	5⅞-6
Commonwealth Oil Co.	£500,000 Pref.	£1	$\frac{11}{16}$-$\frac{13}{16}$
,, ,,	£225,000 Def.	£1	¾-⅞
Lobitos Oilfields, Ltd. (£1)	£360,000	£1	31/6-32/6
Pacific Oilfields, Ltd. (£1)	£200,000	£1	28/0-29/0
Russian Pet. & Liquid Fuel	£500,000 6½% Pref.	£1	3/0-4/0
,, ,,	£600,000 Ord.	£1	3/0-4/0
Schibaieff Petroleum	£575,000 6% Pref.	£5	6/0-8/0
,, ,,	£575,000 Ord.	£1	1/0-2/0
Shell Transport & Trading	£2,300,000	£1	75/6-76/6
,, ,, ,,	£1,000,000 Pref.	£10	11¼-11½
Spies Petroleum Company	£465,000	10s.	24/9-25/3

RUSSIAN COMPANIES.

Company.	Nom. Value in Roubles.	Latest Quotations.	
		Lowest Roubles.	Highest Roubles.
Baku Naphtha Co.	100	315	316
,, ,, ,, (issue of 1908) fully pd.	100	324	330
Balakhany Naphtha Co.	250	—	—
Caspian Society	1,000	4,550	4,550
Mazout Co.	250	—	—
Melikoff, A. C.	250	—	—
Mirzoeff Bros.	250	—	—
Naftalan Co.	250	—	—
Naphtha Co. "Kavkas"	250	—	50
Naphtha Trading Co., A. I. Mantacheff & Co.	250	134½	136
Neft Co.	250	—	75
Nobel Bros.	5,000	12,950	12,000
,, ,,	250	—	598
Rops and Co. V.	250	315	315
Russian Naphtha Co.	250	—	—
Society Mazout	250	—	400
Ter-Akopoff Co.	250	—	—
Tumaieff & Co., J. G.	250	96	—
Volga-Caspian Naphtha and Trading Co	250	—	—
,, ,, ,, (Second Issue)	250	—	—

SCOTCH COMPANIES

Supplied by Messrs. Maclean and Henderson, Stirling.

Company.	Capital Paid Up.	Value of Share.	Latest Prices.
Anglo-Persian Oil Co., Ltd., 6% Part Pref. (5s. paid)	£150,000	£1	6s. 3d.
Do. 5% Deb. Stock	£600,000	£100	£95 0s. 0d.
Broxburn Oil Co., Ltd., Ord. 17/- pd	£235,000	£1	£2 3s. 6d.
Do. 6% Cum. Pref.	£100,000	£10	£12 3s. 9d.
Burmah Oil, Ord.	£1,100,000	£1	£5 1s. 9d.
Do. Pref.	£250,000	£1	£1 7s. 6d.
Dalmeny Oil Co., Ord. (7 paid)	£37,800	£8 10s	£4 19s. 6d.
Do. 5% Pref.	£18,900	£7	£4 10s. 0d.
Oakbank Oil Co., Ltd., Ord.	£170,000	£1	£1 18s. 6d.
Do. Pref. (£1 paid)	£100,000	£1	£1 4s. 3d.
Pumpherston Min. Oil Co., Ld., Ord. (17s. paid)	£110,500	17s.	£8 18s. 9d.
Do. 6% Cum. Pref.	£100,000	£10	£13 0s. 0d.
Tarbrax Oil Co., Ltd. Ord. (£1 pd.)	£65,000	£1	£2 13s. 0d.
Do. 6% Cum. Pref.	£40,000	£1	£1 4s. 6d.
Young's Paraffin Co., Ltd., Ord.	£452,808	£4	£3 11s. 0d.
Do. "B" Deb.	£150,000	£100	£161 0s. 0d.

DUTCH COMPANIES.

Company.			Latest Quotations (per cent.)
Dordtsche Petroleum Industrie My.		Aand.	180
,, ,, ,,	Pref.	,,	197½
Int. Roum. Petroleum Maatschappij		,,	26
Royal Dutch Petroleum Co.		,,	427½
Mœara Enim Petroleum Maatschappij		,,	213¾
Oklahoma Petroleum Co.	Pref.	,,	129⅞
,, ,, ,,	Ord.	,,	46⅛
Perlak Petroleum Maatschappij		,,	143½
Sumatra Palembang Petroleum Maatschappij		,,	173
Zuid Perlak Petroleum Maatschappij	Pref.	,,	187
Union Petroleum Co.		,,	88½
Bibi-Eybat Petroleum Maatschappij		,,	24½
Russian Petroleum and Liquid Fuel Co.		,,	18½
,, ,, ,,	Pref.	,,	18
,, ,, ,,	(6% Debs.)	,,	35¼
Schibaieff Petroleum Co. (Ord.)		,,	5¼
,, ,,	Pref.	,,	7
Shell Transport and Trading Co.	Ord.	,,	394
Tulsa Petroleum Co.		,,	92½

THE INDIAN PETROLEUM MARKET.

(*Crowded out of page* 137.)

Bombay, Feb. 7th.

The petroleum market is strong. The following are the current prices of the Standard Oil Co. of New York:

		Rs.	a.	p.
Snowflake Brand, 150 deg., American	(per case)	6	4	2
White Rose, 150 deg.	,,	6	4	2
Chester Brand, 76 deg. Abel	,,	4	12	2
Devoe's Brilliant	,,	4	12	2
Monkey Brand, 76 deg. Abel	,,	4	6	2
Elephant Brand, 125 deg. (bulk in tins)	(per 2 tins)	3	15	0
Elephant Brand, 125 deg. (bulk without tins)	(per 8 Imperial gallons)	3	5	0

The following are the current prices of the Asiatic Petroleum Co., Ltd.:—

		Rs.	a.	p.
Swan Brand, bulk loose	(per unit)	2	15	0
Swan Brand, new tins	(per pair)	3	9	0
Ship Brand, bulk loose	(per unit)	3	5	0
Ship Brand, new tins	(per pair)	3	15	0
Rising Sun Brand, bulk loose	,,	3	7	0
Rising Sun Brand, new tins	,,	4	1	0
Anchor Cases	(per case)	4	3	0
Silver Light 150 deg. cases,	(per case)	5	4	0

The prices of the Burma Oil Co.'s productions are as under:—

		Rs.	a.	p.
Kerosene, Victoria	(per 2 tins)	3	8	0
Kerosene, Victoria	(per 8 gallons)	2	14	0
Kerosene, Chukker	(per 2 tins)	3	15	0
Kerosene, Chukker	(per 8 gallons)	3	5	0
Burmah Wax	per pound)	0	3	0
Burmah Candles	,,	0	5	0

PRODUCTION OF ENGLISH COMPANIES IN RUSSIA.

Baku Russian Petroleum Co., Ltd.—The production for the week ended January 29th was 153,950 poods, or 2,482 tons; and for the week ended February 5th was 148,100 poods, or 2,387 tons. These figures are exclusive of oil produced from plots leased off.

Russian Petroleum and Liquid Fuel Co., Ltd.—The production for the week ended February 12th was 153,000 poods, or 2,467 tons; and for the week ended February 19th was 144,000 poods, or 2,322 tons.

Spies Petroleum Co., Ltd.—The production for the week ended February 13th was 333,665 poods, or about 5,382 tons. The total production for the year to February 13th was 1,407,165 poods, or about 22,696 tons. The total production for the corresponding period last year was 959,580 poods, or about 15,477 tons. The production for the week ended February 20th was 347,935 poods, or about 5,612 tons. The total production for the year to February 20th was 1,755,100 poods, or about 28,308 tons. The total production for the corresponding period last year was 1,270,610 poods, or about 20,494 tons.

The European Petroleum Co., Ltd.—The production for the week ended February 13th was 108,048 poods, or 1,742 tons; and for the week ended February 20th was 108,744 poods, or 1,753 tons.

GEORGE TWEEDY & Co.,
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Agents for the Sale of
KEROSENE,
LUBRICATING OIL,
LIQUID FUEL, and
SOLAR OIL.
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A Guide to the Exploration of Petroleum Lands, and a Study of the Engineering Problems connected with the Winning of Petroleum, including Statistical Data of Important Oil-Fields, Notes on the Origin and Distribution of Petroleum, and a Description of the Methods of Utilising Oil and Gas Fuels,

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Author of
"The Oilfields of Russia and the Russian Petroleum Industry."

London: **CROSBY LOCKWOOD & SON,**
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(ESTABLISHED 1870.)
Head Offices: 28, BEDFORD STREET, CHARING CROSS, LONDON, and
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Branches: Manchester, Liverpool, Leeds, Bradford, Bristol, &c.
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Stocks and Shares bought and sold.
Two-and-a-half per cent. allowed on Current Account Balances.
Deposits of £10 and upwards received as under :—
Subject to 3 months' notice of withdrawal, 5 per cent. per annum.
" 6 " " 6 " "
" 12 " " 7 " "

Special terms for longer periods. Interest paid quarterly. Owing to the nature of our investments, we are able to pay rates of interest on deposits that will compare favourably with dividends paid on almost any class of stock or share-holding insuring the safety of capital. We have been established for 40 years, and our position in the banking world to-day testifies to the success of our business methods, and to the satisfaction of our customers. Write or cal for Prospectus.

A. WILLIAMS and H. J. TALL Joint Managers

OIL FOR THE EMPIRE FROM THE EMPIRE.

FOR any information upon the Future of Petroleum and the Development of our Colonial Oilfields, all those interested in this most important subject should write Geo. Macdonald, 560/1, Salisbury House, London, E.C. Full particulars of petroleum companies' quotations of shares to be had on application.

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THE
PETROLEUM REVIEW,
45, St. Mary Axe, London, E.C.
American Office: 150, Nassau Street, New York.

Saturday, February 26, 1910.

THE OIL BOOM.

AT last, after many years of waiting, petroleum enterprises in almost every part of the world have claimed the serious attention of the British capitalistic classes, and to-day oil shares upon the London Stock Exchange are the most sought after of any industrial securities on the market. We are, without a doubt, in the midst of the greatest oil boom which this country has ever known.

Those in the "inner circle," as it were, maintain that the present boom which has been slowly manifesting itself for a month or two has come to stay, and that for many months to come, oil stocks will form the most popular investment. We on our part can only hope that the present activity will long continue, and inasmuch as the general movement is upon a substantial basis, there is every appearance of its doing so.

We have for many years been surprised at the comparatively small support which petroleum enterprises have met with at the hands of the British capitalist, who, while rushing headlong into other forms of essentially speculative mining concerns, has rather been inclined to throw a wet blanket over the most promising petroleum propositions. One reason for this lack of confidence may possibly be said to have been brought about by reason of the fact that several of the English oil enterprises have scarcely proved to be paying propositions, but when one comes to consider the enormous number of petroleum companies backed up by public capital, and the remarkable profits they have made during the greater portion of their career, it must be admitted that the proportion of non-paying oil investments to-day is comparatively small.

Let us for one moment consider a few of petroleum enterprises which have appealed to the English capitalist for support dnring the past few years, and see if the present boom is not thoroughly justified. We will take the following representative concerns :—

	Ordinary Share Capital.
Shell Transport and Trading Co., Ltd. ..	£2,300,000
Burmah Oil Co., Ltd.	1,100,000
Californian Oilfields, Ltd.	400,000
Lobitos Oil Fields	360,000
Scottish Shale Oil Companies	1,000,000

Here we have investments in ordinary share capital representing over £6,000,000 in petroleum concerns, the successful parallel of which it would indeed be difficult to find by a thorough search of Somerset House company registrations. Each concern has paid solid dividends, in some instances these being fifty per cent., and in others the whole of the subscribed capital has, in the shape of dividends, been returned to the shareholders, while to-day these petroleum investments stand at a market value of approximately £19,000,000.

There are, we admit, several concerns which so far have not, for various reasons, yielded returns to the shareholders, but looking at this matter broadly, one must confess that the proportion of such companies is considerably smaller than that found in other branches of commercial enterprise.

We frequently have drawn the attention of our readers to the minimum of risk which is to be found in the vast majority of petroleum enterprises as an investment, and therefore we would confine ourselves upon this occasion more particularly to the present oil boom.

Closely identified as we are with the petroleum industry, we view the present outlook with feelings of gratification, not because it is merely a boom which, after subsiding, might leave petroleum investments much in the same position as it found them, but particularly because we see in it a deeper and far more important meaning.

The present boom signalises the advent of an age of a vast expansion of the petroleum industry in almost every part of the world. The claims of petroleum have not been boomed from the house-tops, yet with the popularity of the motor industry, which practically depends upon the more valuable products of petroleum for its power, and with the extended use of liquid fuel in many directions, but notably its great utilisation by the British Admiralty, the public has already learned to recognise the great safety which must of necessity underlie petroleum investments in almost every shape and form.

Let us make ourselves clear that we do not even infer that there is safety in the wildcat schemes, which under the cloak of petroleum enterprises sometimes take an unsuspecting public by surprise. We had one of these recently—one which we in the Review felt it our duty to openly and most unreservedly condemn.

But as time goes on, it is refreshing to see that the old-time unscrupulous company promoter is now fast dying out, even if he be not already a character of the past, for taking the present oil boom as a whole, we note with pleasure that the petroleum schemes now being put forward are of a character which deserve to secure the confidence of the public. We have always contended that a thoroughly sound oil proposition, honestly drawn up and conducted in the light of experience is practically certain of success, and in view of the clear atmosphere which now pervades the oil boom, we do seriously think that the present days of activity and public confidence in petroleum ventures will be long lived.

Our advertising pages to-day afford evidence of the practical manner in which the oil boom is progressing. There is at home the serious attempt which is to be made to develop those extensive areas of natural gas and bituminous territory surrounding Heathfield by the South of England Natural Oil and Petroleum Co., Ltd., while abroad we find that matters have so far progressed with respect to Trinidad, as to bring a thoroughly workable proposition before British investors. Other highly promising petroleum enterprises are now being matured for exploiting the Maikop fields with large sums of English capital: then we have the influential syndicate which is about to develop the admittedly vast petroleum resources of Russian Sakhalin, while also in the Far East, the claims of Timor Island, with its wealth of petroleum bearing strata are to be thoroughly investigated by English capital.

Roumania with its extensive tracts of virgin territory offers many inducements for the employment of public finance, for when other continental countries find it to their interest to place large sums in Roumania, the English capitalist need have no fear as to either the safety of his capital or its remunerative investment.

If space would permit, we could multiply these instances almost without end. Let it suffice to state that as a result of the present oil boom, the investor has everything to gain, and with him, the petroleum industry at large.

◆

Promoting Canadian Oil Stocks.—It is reported that the promotion of Canadian oil stocks is being energetically pushed forward by certain Canadian financial groups. One financial paper has just come out with a warning to investors, shewing that, according to official figures, the production of oil in Canada is decreasing. The writer in this Canadian financial journal adds :—"It requires but little investigation to determine whether a particular oil company is fishing for money or boring for oil."

THE SOUTH OF ENGLAND NATURAL GAS & PETROLEUM COMPANY, Ltd.

(Incorporated under the Companies (Consolidation) Act, 1908.)

Application for Shares and Debentures at par will be entertained by the Directors not later than Monday the 28th February, after which date the Balance (if any) unallotted will probably be advertised for public subscription at a premium.

The complete Prospectus has been filed with the Registrar of Joint Stock Companies.

Share Capital .... £20,000, DIVIDED INTO

10,000 8% Preference Shares, and 10,000 Ordinary Shares of £1 each.

After payment of a dividend of **8 per cent.** on the Preference Shares in any year, the balance of profit (if any) available for distribution shall be divided between the holders of the Ordinary Shares according to their respective holding, and are unrestricted as to dividends.

The Preference Shares shall have priority over all the Ordinary Shares in repayment of Capital, as well as in respect of the said Preferential Dividend in any year.

7,000 Eight per cent. Preference Shares, 9,900 Ordinary Shares of £1 each, and 5,000 Five per cent. First Mortgage Debentures in sums of £100 each, are now offered for subscription at Par.

The Debentures are redeemable at a premium of £5 per cent., 31st December, 1913—or sooner at the option of the Company—interest payable, June and December, a full six months' interest will be paid in June next.

Payable on Shares:—	**5/-**	per Share on Application.
	10/-	,, ,, Allotment.
	5/-	,, ,, 31st March, 1910.
	£1-0-0	

Payable on Debentures:—	**£50**	per Debenture on Application.
	£50	,, ,, Allotment.
	£100	

The £5,000 Debentures will rank as a first charge upon the Freehold lands (which the Company propose to acquire, with part of the proceeds of this issue) and whereon they propose to sink new Bore Holes as advised. Debenture holders will have a right to exchange part of these Debentures for Preference Shares, at par value, provided such Shares are available and unissued.

Directors.—Capt. F. Jenkins (D.S.O.), Burwash, Sussex; D. Wallace Heims, Natural Gas Expert, The Hall, Heathfield, Sussex; E. Nussey, Esq., Merchant, 34, Brewer Street, London, W.
(An Additional Director will be appointed at the first Shareholders' Meeting.)

Solicitors.—Jacksons, Elwell & Curran, 23, Coleman Street, London, E.C.

Boring Engineers and Contractors.—John Thom, Patricroft, Near Manchester; John Henderson & Son, Ltd., Glasgow.

Auditor.—Horace Clough (Chartered Accountant), 54, Gresham Street, London, E.C.

Engineer.—D. Wallace Heims.

Joint Secretary and Registered Offices.—F. W. Eustace, Natural Gas Offices, Heathfield, Sussex.

ABRIDGED PROSPECTUS.

The discovery of Natural Gas on the South Coast, in Sussex, about 20 miles from **Brighton, Hastings, Bexhill and Eastbourne,** is, like our Coal Fields, of **National Importance,** as the Ironworks of Sussex employed some 5,000 men in 1760, when the coal in the North took ironworking away from the South of England. The existence of Natural Gas in large quantities would make possible the revival of the Sussex Iron Industry, as America has demonstrated the value of Natural Gas as an excellent Smelting Fuel. **Natural Gas is now being obtained** from the Bore Hole on the London, Brighton and South Coast Railway Company's Property, and is utilised for **Cooking, Heating** and **Lighting** in the District. It requires **no purifying,** which is necessary with Coal Gas. As it issues from the Bore Hole it is stored up and passed on for use. One of the present largest consumers (the Hotel) states that the Natural Gas in burning is not only **cleaner than coal gas** but gives a more **perfect and brilliant light for less consumption**.

The existence of Natural Gas over a large area in East Sussex, which has been geologically surveyed by both English and American Experts, **has been fully proved,** and **since** one of the present comparatively shallow Bore Holes, **377 feet deep,** was sunk about **12 years ago** by the London, Brighton and South Coast Railway Company, the supply of **Natural Gas has been proved by careful observation to have uninterruptedly continued therefrom without diminution of pressure and has yielded about 4,000,000 (four million) cubic feet of Gas, and still continues to supply without any mechanical aid (in spite of the fact that part of the above hole has caved in and therefore become partly choked).** A portion of the Gas issuing from this Bore Hole has been for the past nine years continuously used in lighting the Railway Station and Premises which annually burn about 100,000 cubic feet, and also for Lighting and Heating purposes. Its brilliant White Light and cleanliness, being free from smoke, would be difficult to equal, and it is preferred to coal gas. The cost of labour attending the Bore Hole is only about 2d. per thousand cubic feet of Gas, the price of Coal Gas in the district is about 4s. 6d. per thousand.

Natural Gas has a heating value of fully one million British Thermal Units per thousand cubic feet. **Therefore less Natural Gas than Coal Gas is required**—the ratios being approximately:—

Coal, 1,000 cubic feet, Natural, 670 cubic feet.

Showing a saving of 330 cubic feet, or **33 per cent. less Natural Gas being required than Coal Gas**—for an equal amount of Incandescent Light and Heat.

By the Report of the Engineer the Directors are advised to sink a Bore Hole considerably deeper than the **already proved Gas yielding Bore Holes, which are believed to be within about 1,600 feet of the real Gas Bearing Strata, when he believes a large and almost inexhaustible volume of Natural Gas might be obtained, and Oil Shale discovered.**

The Company's Engineer has also reported on the probability of **Petroleum** bearing Shale in Sussex, and summarises his Report by stating **"There can be no question as to the occurrence of Bituminous matter containing Petroleum in the Kimmeridge formation at Netherfield,"** and he further states **"The importance of Bituminous deposits yielding Gas and Oil in the South of England cannot be overlooked,"** etc., also "The analysis of the Gas points to its Generation from a Bituminous matter, which, when tapped, may be of much higher grade than the Oil Shales of the Mid-Lothian or North of England fields."

The Company's Engineer also states that as a result of his recent experiments he has increased the flow of **Natural Gas** from the present Bore Hole, which is only 377 feet deep, and that at any depth beyond 800 feet it may reasonably be expected that a large volume of Gas will be encountered.

FINANCIAL PROSPECTS.

In reporting upon the Financial Prospects, the Company's Engineer states:—

"I take the very moderate estimate that within a radius of ten miles of the Gas Belt the annual output by the various small Gas Works within this zone would be about fifty million cubic feet per annum. **You would be able to supply them at 1/3 per thousand cubic feet in bulk.** And I am convinced that they will be willing to negotiate on these lines as soon as you are able to show an adequate supply.

I believe the London, Brighton & South Coast Railway Company controlling the railroad passing through the area—would be willing to enter into an agreement, and to grant your Company rights to lay gas mains along their lines; and this being so, **I see no obstacle in the way of transporting the Gas over the area mapped out.**

It must not be lost sight of **that the demand for natural Gas for power and industrial purposes will be a large item in your project.** You could supply gas for these purposes at 1/- per thousand cubic feet, **and doubtless, as you are aware, cheap power creates new industries.**

I herewith give an idea of the production of coal gas within a radius of twenty miles of the gas belt according to the *Gas World Year Book* for the year 1909. Six of the largest Companies which I have marked on the map and are within a radius of twenty miles produce per annum—two billions six hundred and twenty-seven million and ninety-eight thousand cubic feet. And assuming that your find of Natural Gas was equal to only one-third of this, the revenues to be derived from this

Twenty mile zone would be:—875,699,333 cubic feet at 1/6				**£65,677**	**9**	**0**
Less 6d. per 1,000 cubic feet administration and maintenance				**21,892**	**9**	**8**
				£43,784	**19**	**4**
From 10 mile radius say 50,000,000 at 1/3	**£3,125**	**0**	**0**			
Less 6d. per 1,000 cubic feet for administration and maintenance ..	**1,250**	**0**	**0**			
				1,875	**0**	**0**
Net Revenue from both Zones ..				**£45,659**	**19**	**4**

It will be seen that there is an enormous market for Natural Gas; and by the above estimate the whole of the Share Capital of the Company would be returned in dividends in a very short time.

In the event of the proposed Boring providing a satisfactory quantity of Natural Gas or commercial Petroleum Shale, it is the intention of the Directors to propose the FORMATION OF A NEW COMPANY with a larger Capital, for the purpose of taking over the Works and furthering the objects of this Company, paying CASH and allotting SHARES to Shareholders in the present Company on the following lines. **For each £1 *Share* of the present capital issued.**

£1 10s. 0d. in cash, } **£2 10s. 0d.**
£1 0s. 0d. fully paid *Share*, }

equal to a premium of 150 per cent. per *Share*.

Applications for Shares or Debentures should be forwarded to the Secretary, at the Company's Registered Offices, The Hall, Heathfield, Sussex, with the amount of the deposit stated. Where no allotment is made, the deposit will be returned in full, and in the case of a partial allotment the balance of the deposit will be applied towards subsequent instalments.

THE UNION OIL COMPANY OF CALIFORNIA.

ANOTHER HIGHLY SATISFACTORY REPORT.

The annual report of the Union Oil Co. of California for the past year's working, which was submitted to the shareholders a few days ago, shews, like its predecessors, a highly satisfactory state of affairs.

Mr. Stewart, the company's president, points out in the report that during 1909 the company was very prosperous, and its prospects were never brighter nor more encouraging during any period of its existence.

Embodied in the annual report are reports submitted by the various heads of departments of the corporation. The report of the auditor of the company includes the following very interesting figures:—

Total outstanding shares of stock December 31st, 1909, 251,306; par valuation, $25,130,600; average par valuation for twelve months, 246,294 shares, $24,629,400; gross earnings for twelve months, $9,687,339·34; oils and other supplies used for manufacture, twelve months, $2,627,106·47; expenses, twelve months, $4,405,056·19; total, $7,032,162·66; net earnings, twelve months, $2,655,176·68; monthly average net earnings, twelve months, $221,264·72; rate per cent. of net earnings on average outstanding stock, 10·8; dividends paid (twelve in number), $1,477,767·50; surplus, after deducting dividends, $1,177,109·18; rate per cent. of dividends paid on average par valuation of outstanding stock, 6 per cent.

The Union Oil Co., it is stated, owns stock, which practically amounts to control, in the following companies, either directly or through holding companies: Mission Transportation and Refining Co., Union Transportation Co., Mission Transfer Co., Newlove Oil Co., Santa Maria Oil and Gas Co., California Coast Oil Co., Claremont Oil Co., California Industrial Co., Pitcher and Garbutt Oil Co., John Irwin Oil Co., Old Keystone Oil Co., Pioneer Pipe Line Co., Union Steamship Co., United Steamship Co., Los Angeles Oil Co., Union Well Supply Co., Union Oil Tool Co, Kaiser Oil Co., Outer Harbour Dock and Wharf Co., Producers' Transportation Co., Pecton Steamship Co., Lake View Oil Co. These companies have a total capitalisation of approximately $30,000,000.

The condition of the Union Oil Co.'s marine department is contained in a report made by Mr. W. B. Tubby. The fleet now consists of eleven tank ships, four tank barges, one tug and one utility barge. The total capacity is 466,950 barrels. The fleet now is in good condition, and, according to Mr. Tubby, the cost of transporting oil in 1910 should be decreased.

Alex Sclater, manager of the sales department, tells of the organisation of the Producers' Transportation Co. and the work of construction. The number of producing wells controlled by the Union Oil Co. in 1909 was 302, with 412·19 miles of pipe line. The tankage on December 31st, 1909, amounted to 3,647,000 barrels.

Other matters given in detail in the report include the following statistics:—

Pipe line—Number of miles owned by the Union Oil Co., December 31st, 1909, 412·19, an increase in a year of 27·19 miles; number of miles owned by the Producers' Transportation Co., in which the Union is largely interested, 200·30; increase by the two companies of 227·49 miles, or 59 per cent.

Tankage—Union, December 31st, 1909, 3,647,000 barrels; December 31st, 1908, 3,300,000 barrels; increase, 10½ per cent.; Producers' Transportation Co., December 31st, 1909, 1,920,000; total for the two companies, 5,567,000, an increase of 2,267,000 barrels, or 68$\frac{7}{10}$ per cent.

BATOUM PETROLEUM EXPORT TRADE.

The petroleum exports from Batoum during November were not above the ordinary, as the demand for Russian oil on the European markets still continues to decline.

	November, 1909. Poods.	October, 1909. Poods.	November, 1908. Poods.
Illuminating oil ..	1,529,000	891,000	2,397,000
Lubricating oil ..	665,000	944,000	971,000
Residuals	239,009	273,000	140,000
Total	2,433,000	2,108,000	3,562,000

GULF REFINING CO.,

Refiners of Oklahoma and Texas Petroleum.

We make a Speciality of

SUPERIOR LUBRICATING OILS OF HIGH VISCOSITY AND LOW COLD TEST.

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THE OIL SHALES OF CANADA.

By PROF. BASKERVILLE.

(Concluded from page 92.)

The preliminary examination, which was not intended to be exhaustive, indicated that the shales were worthy of more extensive investigation; therefore some 40 odd tons of the run-of-mine shale were put through the experimental plant of the Pumpherston Oil Co., Ltd., near Edinburgh, Scotland, in the presence of Dr. R. W. Ells, representing the Canadian Government, and my assistant Mr. W. A. Hamor. This commercial test gave 48 U.S. gallons of crude oil (naphtha not recovered) and 77 pounds of ammonium sulphate per long ton.

The crude oil possessed a brownish black colour, and had a specific gravity of 0·92, a flash point of 194° F., and a settling point of 54° F.

It was found to contain 0·62 per cent. sulphur. It had a heating value (by bomb calorimeter method) of 18·474 B.T.U. method.

The crude oil is probably of a semi-asphaltic base nature. When distilled in an Engler distillation flask at the rate of 2·5 c.c. per minute up to 740° F., a 10 per cent. residuum, soluble in carbon disulphide was obtained. This may perhaps be increased by air-blowing. This phase of the investigation is to be prosecuted further.

A considerable amount of uncondensed gas was produced from the shale during retorting; in fact, this gas served to carry out the retorting. Several samples of the gas were taken at a point between the ammonia scrubbers and retort combustion chamber, and analysed with the following results:—

	Per cent.
Carbon dioxide	29·67
Carbon monoxide	5·06
Olefines	1·33
Methane	11·02
Hydrogen	52·92
	100·00

Calorific value, 305·1 B.T.U. per cubic foot (N.T.P.) Specific gravity, 0·613 (air, 1). Weight per cubic foot, 0·0492 pound.

On refining the crude oil gave the following yields per ton of shale:—

	Britain. Gallon.	United States. Gallon.
Naphtha	0·6	0·7
Burning oil	4·3	5·1
Gas oil	5·6	6·7
Cleaning oil	0·8	0·9
Lubricating oil..	4·1	4·9
Paraffin Wax	1·1	1·3
Totals..	16·5	19·6
Residuum	1·5	1·8
Creosote, tar, pitch, coke, etc. ..	22·0	26·6

The yield of refined products was regarded as very satisfactory, considering the low grade material from which the oil was retorted. As mentioned above, the light naphtha was lost during retorting, and, moreover, it was found impossible to extract all the lower melting point paraffin on a small scale.

An incomplete but sufficiently extensive chemical survey of the field was carried out to determine its value. The oil was determined by the tube test, such as is used in Scotland in testing a shale before passing it through the retorts on a commercial scale.

The tubes which were employed for the determination of the yield of crude oil from a given sample of shale were made of one-fifth inch wrought iron tubing, having a diameter of two inches and a length of six feet, and were sealed by a cap at one end. One pound of the shale in pieces about half-inch square was put into the tube, which was then placed in an oven, and heated gradually to a dull-red heat. The tube was inserted in the oven for about one foot of its length and inclined at a convenient angle. No condenser was used in making these tests, so that the naphtha was lost, but, by controlling the heat properly, the conditions of distillation are nearly identical with those occurring in a modern retort.

The method used for the determination of the yield of of ammonium sulphate obtainable from a sample of shale was that known as the Bailey method, and which is used in the laboratories of all crude oil work where Pumpherston retorts are in use. A definite weight of the shale in small pieces (30 mm. in diameter) is heated in a malleable iron tube to bright redness in the presence of a current of steam for one and a-half hours, the gases resulting being led into a flash containing 2N sulphuric acid. In this solution the ammonia is determined as nitrogen by sodium hypobromite in a nitrometer, and the yield of ammonia sulphate is calculated therefrom.

Determinations by these methods approximately equal the yields obtained by retorting the shale in a Pumpherston retort.

The following is the oil and ammonium sulphate, taken from different localities:—

Locality.	Imperial gallons of Crude Oil, per ton.	United States gallons of Crude Oil, per ton.	Specific Gravity of Oil.	Pounds of Ammonium Sulphate, per ton.
Shale reported in Scotland at works retort	40	48	0·92	77
George Irving's (same as above) by laboratory methods	39	47	0·895	76
Baisley's Farm, Baltimore..	54	65	0·895	110
E. Stevens	49	59	0·892	67
Hayward's Brook, Prosser Brook	30	35	0·895	75
Adams Farm	43	51	0·90	93
A. Taylor's Farm, No. 1 ..	48	58	0·91	98
A. Taylor's Farm, No. 2 ..	37	44	0·925	110
Sample of 85 pounds, run in 1907	51	61	0·91	111

Shales are always of variable character, and it is impossible to procure true average samples of the various seams for analysis. However, we have shewn by laboratory tube tests that the oil shales of New Brunswick are not as variable in the yield of crude oil as the shales of Scotland.

The importance of the large deposits of fuel oil has been appreciated by far-sighted people, for these shales virtually present a proposition which means a barrel of oil net for each ton of shale raised. The by-product, ammonium sulphate, not taken into account in the early days, will more than bear all the expense of mining and treatment, and the oil product is not governed by the fortuitous discovery of an oil reservoir by boring and the sure exhaustion of the well if it is originally productive.

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AMERICA'S EXPORTS OF PARAFFIN WAX DURING 1909.

The exports of paraffin wax from America during 1909, and a comparative table of exports for 1908 and 1907, are herewith given, the figures being in pounds :—

Exported to—	1909.	1908.	1907.
United Kingdom ..	101,251,267	85,868,311	107,699,672
Belgium	4,105,527	405,783	1,185,238
France	682,544	383,408	923 041
Germany	9,437,161	4,254,149	11,909,435
Italy	12,408,039	6,160,813	21,542,593
Netherlands	5,782,881	2,936,541	7,602,889
Other European Countries	4,836,904	4,329,389	6,428,877
Central America and British Honduras ..	1,523,927	1,352,884	1,265,411
Mexico	12,501,862	12,543,367	12,706,881
South America.. ..	344,370	450,945	866,045
Japan	8,000,605	7,805,949	14,111,239
British Australasia ..	3,986,960	2,346,884	4,805,166
Other Asian Countries and Oceanica ..	8,907,401	6,587,856	4,293,431
British Africa	2,949,779	1,622,217	5,113,056
Other African Countries	4,391,713	4,478,338	7,003,211
Other Countries ..	216,628	140,636	48,309

The figures for the closing month of the year were as under, also in pounds :—

Exported to—	1909.	1908.
United Kingdom	12,741,452	8,417,990
Belgium	719,839	—
France	160,639	45 483
Germany	2,909,164	343,375
Italy	1,667,877	418,084
Netherlands	766,987	301,464
Other European Countries.. ..	1,156,182	263,808
Central American States and British Honduras	197,507	100,991
Mexico	809,323	1,496,950
South America	31,827	21,696
Japan	1,197,737	999,616
British Australasia	189,736	125,527
Other Asia and Oceanica	615,579	25,181
British Africa	763,863	184,779
All Other African Countries ..	366,159	—
Other Countries	41,359	12,573

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THE NEW PETROLEUM TAX IN THE STRAITS SETTLEMENT.

Regarding the new petroleum ordinance which has been passed by the legislative council enforcing a tax of 2·8 cents upon every imperial gallon of oil imported into the Straits Settlements and consumed there, but if re-exported no tax is imposed, the American Consul-General says :—

"As the importation amounts to about 6,500,000 imperial gallons the tax should bring in an annual local revenue of nearly $182,000, and as 1,300,000 gallons of the total importation comes from the United States the American portion of this local tax amounts to $36,400. It is not certain that this will affect seriously American trade, but it is the general belief that the consumers will eventually pay this tax, as the increase will be naturally added to the prices charged the natives."

ENGLISH PATENTS.

(Specially contributed by Messrs. EDWARD EVANS & Co., Consulting Engineers, Chartered Patent Agents, and Enrolled Patent Attorneys, of the United States, of 27, Chancery Lane, London, W.C.

Applications Filed in Great Britain.

Improvements in or Relating to Apparatus for Vapourising Oil and the Like.—William Howell Peacey, 111, Hatton Garden, London. No. 2985 of 1910.

Improvements in Incandescent Burners Applicable for Petrol and other Volatile Liquids.—Eugène Léon Louis Rousselet, 6, Bank Street, Manchester. No. 3262 of 1910.

Improvements in or Connected with Oil Lamps.—William Charles Haggett, trading as Luxol Safety Light Co., Birkbeck Chambers, Southampton Buildings, London. No. 3429 of 1910.

Applications Published in Great Britain.

Improvements in Liquid Fuel Burners.—Francois Eustratius Mavrogordato, 146, Guterstrasse, Bale, Switzerland. No. 2083 of 1909.

This relates to hydrocarbon heating apparatus of the kind in which the fuel supply regulator and the gas outlet are regulable simultaneously, and consists in the provision of a device in which the needle regulator operates internally of and axially of the fuel supply pipe, and when in operation serves to remove from the nozzle any dirt which might have collected.

Vapour Lamps and Burners.—William Hartley, 56, Derby Street, Burton-on-Trent. No. 1458 of 1909

This relates to the combination with an inverted vapour lamp of a vapouriser arranged above the burner, communicating with a mixing chamber at the side of and exterior to the external casing, such mixing chamber being connected to a superheater above the burner.

Incandescent and other Burners for Gasified Liquid Hydrocarbons.—Jean Baptiste Virgile Leon Harlé, 25, Avenue de la Republique, Paris, France. No. 11167 of 1909.

This relates to a burner for gasified liquid hydrocarbon, and consists in the arrangement in the nozzle, through which the combustible pass under the Bunsen, of a very fine cylindrically pointed needle or pin adapted to clear the straight outlet orifice and the body of which is exactly guided in the body of the nozzle, and is controlled at its lower part by a control rod, having a translation movement substantially parallel with the needle or pin, in order to avoid the least lateral thrust upon the needle or pin due to faults in mounting the control rod or in its guidance.

Incandescent Lamps for Vapourised Liquid Combustibles.—Wiktorin and Co., Margarethenstrasse 120, Vienna V, Austria. No. 18209 of 1909.

This relates to an incandescent lamp utilising a fluid combustible in vapourised form, and consists in providing an upwardly extending pipe which is closed at its upper end and passes through the evaporating chamber, and is formed within the chamber with a narrow longitudinal slit or with a series of orifices, a superheating pipe also closed at its upper end passing through the evaporating chamber and opening into the mixing tube, this pipe having the usual openings situated near the cover of the chamber, in order that a complete vapourisation of the combustible may be effected within this latter, and to prevent the feeding of liquid combustible into the mixing tube and into the burner independently of variations in the ascending power, and in the quantity of the combustible, which on its entering the vapourating chamber is still incompletely vapourised.

BORE HOLES FOR OIL
Contracted for by
JOHN M. THOM,
Canal Works,
Patricroft, MANCHESTER.
CONTRACTOR TO H.M. GOVERNMENT.

USES OF MINERAL OILS MIXED WITH CONCRETE.

By Mr. ALBERT MOYER, of the American Society Civil Engineers.

The mixing of mineral oil with concrete is very simple. The oil, alkalies and water will form an emulsion becoming thoroughly incorporated in the concrete. If the concrete is to be mixed by hand, proceed as usual, and after the water has been added, the resulting mass turned and raked, add non-volatile mineral oil in proportion of 10 to 15 per cent. of oil to the weight of the cement. Turn the concrete with shovels two or three times, raking while turning; the oil will quickly emulsify and become thoroughly mixed in the concrete.

If machine mixing is employed, use a batch mixer, turning a sufficient number of times to thoroughly mix the cement, sand, crushed stone or gravel and water. Then add 10 to 15 per cent. of non-volatile mineral oil. Turn again the same number of times as it requires to mix the concrete. The oil will quickly emulsify and become incorporated in the concrete.

Oils added to concrete in proportion of 5 to 15 per cent. will slightly delay the initial and final set. Increasing the proportion of oil will further retard both the initial and final set and hardening, but up to 15 per cent., from experiments so far made, it would seem that the retarding of hardening will not be sufficient to cause the work to be uneconomical.

The tensile strength will necessarily be reduced, and with the increasing percentages of oil toughness will be slightly diminished, but not in proportion to the increase in the percentage of oil used.

An extremely interesting paper was read at the meeting of the Association of American Portland Cement Manufacturers at the Hotel Astor, New York, December 15th, 1909, by Logan Waller Page, director, office of public roads, Agricultural Department, Washington, D.C., on the subject of the possibilities of Portland cement as a road material, in which he described some investigations being carried on by Dr. Allerton S. Cushman in the laboratory of the office of public roads to ascertain the practicability of mixing semi-asphaltic base oils with Portland cement concrete, with the object of obtaining the desirable properties of both Portland cement and asphaltum. So far only pats and briquettes have been made; the results so far obtained shew ample strength for ordinary work; six-inch cubes will be tested later.

It is believed that compression tests will shew greater strength than the usual relation of compression to tension. This is a matter for further investigation, and it is to be hoped that chemists and cement testers will actively take up this work and carry on investigations covering long-time periods.

Tensile strain tests should be discarded. Such tests have now been discarded by the German Portland cement manufacturers and compression tests substituted. With the increased scientific knowledge and the consequent better material produced by Portland cement manufacturers tensile strain tests have become obsolete, and owing to the brittleness and extreme sensitiveness of neat Portland cement the unscientific methods employed in tensile strain tests, the personal equation involved, tensile strain tests do not indicate the possible load which Portland cement concrete may carry.

I therefore would earnestly advocate compression tests on cylinders of a size which will cause the area to equal six-inch cubes. In order that such tests may be standardized and relative, standard sand should be used and if possible a standardization of gravel or crushed stone. If crushed stone, trap rock should be used, all passing through a three-quarter-inch mesh and all collected on a one quarter-inch mesh. Mix up cylinders which will theoretically figure maximum density, add varying proportions of oil from five to 20 per cent. Also make up another set of cylinders, adding varying proportions of hydrated lime, from 10 to 30 per cent., increasing the percentage of oil with the increase of hydrated lime. The addition of hydrated lime theoretically should permit the addition of a larger percentage of oil, as we thus have a greater emulsifying material. Varying percentages of Portland cement may be used, always keeping the relation between the sand and stone the same, maximum density having been figured. The amount of Portland cement to be increased above that which is required to fill the voids in the sand.

Two months ago the writer made some briquettes and pats with the object in view of ascertaining if the mixture of oil with wet neat cement and mortar would have the tendency of keeping all but the excess water from leaving the wet neat cement or mortar.

Briquettes were made, neat cement mixed with water, the water slightly in excess of that usually required, after which 10 per cent. of oil petrol was added. (Oil petrol is a white non-volatile petroleum product of about the consistency of melted vaseline.) Pats were made of one per cent., three parts sand mixed with water, a little in excess of what would ordinarily be used, after which 10 per cent. of the same oil was added. These pats are about two and one-half inches in diameter and one quarter-inch thick.

As soon as made they were left in dry air; the initial and final set was found to be normal. They were never immersed in water, but remained in dry air for several weeks. No cracks occurred, and they became so hard and strong that these pats, one-quarter inch thick, were very difficult to break by the use of the fingers and thumbs. After remaining in dry air for three weeks they were put out in freezing temperature for three days and again placed in dry air over the radiator. No cracks or checks have occurred.

After remaining in dry air for a month a test for absorption was made. A broken pat was weighed dry and found to weigh ninety-four sixty-fourths ounce. It was then immersed in water for several hours. Upon removal from the water the surface water was quickly removed with blotting paper, the pat immediately weighed and found to weigh ninety-nine sixty-fourths ounce.

Only five sixty-fourths ounce of water was absorbed. The fact that the pats were never immersed in water and shewed no evidence of checking or cracking, and became hard, would indicate that the emulsified oil had held the water in the mortar, and that such mortar was, therefore, both non-evaporative and non-absorbent, which would tend to shew that concrete in which mineral oil has been mixed would not be likely to contract, and therefore contraction cracks avoided.

Under the theory of Prof. Bauschinger, says the author in his article in the *Manufacturers' Record*, which has been demonstrated by Prof. Swain in the laboratory of the Institute of Technology, Boston, neat cement when set and hardened in air contracts, and that this contraction increases with age up to a certain period, possibly six months or a year. One part Portland cement, three parts sand hardened in air shews contraction, but less in proportion than neat cement. The results also prove that neat cement, when hardened under water, shews a slight expansion, while mortar composed of one part Portland cement, three parts sand, hardened under water, shews expansion, but less in proportion than the neat cement. Reducing these conclusions to figures and taking the average results obtained by various authorities, figuring the expansion and contraction by percentage, the following are the results:—

Neat Portland cement hardened in air at the end of 16 weeks shews 0·15 per cent. contraction.

One to three mortar hardened in air at the end of 16 weeks shews 0·05 per cent. contraction.

Neat Portland cement hardened under water at the end of 16 weeks shews 0·05 per cent. expansion.

One to three mortar hardened under water at the end of 16 weeks shews 0·015 per cent. expansion.

Mixing oil with concrete from the meagre tests so far made would seem to indicate that the oil held the water in the mortar keeping the cement particles wet, and thus furnishing the same conditions as if set under water; hence very materially assisting, if not altogether obviating, contraction cracks and hair cracks or crazing. Furthermore, the resulting mortar appears to be far less brittle, and therefore such treatment should admirably serve the purposes required of concrete retaining walls, foundations, enclosing cellars, tanks, cisterns, etc.

Exhaustive tests have been made by a number of authorities on the action of oils on concrete. The effect of oil on concrete and the effect of oil emulsified in concrete are two separate and distinct subjects.

We are informed by reliable authorities that concrete immersed in animal or vegetable oils will in time disintegrate, and that concrete immersed in mineral oils is unaffected. In the first instance there was no chance for the oil to emulsify; in the latter, the oil is separated into minute globules. A large field of usefulness is ready for oil mixed and emulsified in concrete. The emulsion takes place after the oil is mixed with the wet concrete, and not before, as has been done in a patented article.

A mere casual glance at the uses of Portland cement concrete would indicate that oils mixed with the concrete would prove very desirable for dustless, waterproof floors, for slaughter-house non-absorbent floors, impervious concrete drain tile and sewers.

Contraction cracks will be eliminated in cisterns, drinking troughs, live stock feeding floors and platforms. Some objection may be raised to the use of oil-mixed concrete from the standpoint of its liability to flavour the water or the food. If we stop to consider that the oil is divided into minute globules, thoroughly emulsified, we will see that while there may be some odour, there is not likely to be any taste after the drinking trough, feeding floor or cistern has been in use for a few days.

Such oil-mixed concrete will be effective for liquid manure cistern for the reason above described. It will also be particularly adapted to terrazzo floors, the great objection at present being due to contraction cracks. A white oil may be mixed with Portland cement, white sand and water and used for the purpose of setting brick and stone. It being non-evaporative and non-absorbent, no efflorescence or stain can occur. In fact, such concrete can be used in any work not requiring extraordinary compression strength, and in which the concrete does not come in contact with heat.

One of the particular advantages will be for stucco work and exterior plasters.

It would seem that this idea of mixing oil with wet mortar was novel and new, but like many discoveries, it only proves to be a rediscovery. In the first century, A.D., Marcus Vitruvius Pollio, the famous Roman architect, gives the following detailed specifications for stucco: "A mixture of well-hydrated lime, marble dust and white sand mixed with water, to which mixture is added either hog's lard, curdled milk or blood."

In A.D. 1280 at Rockingham Castle, England, melted wax was mixed with the mortar.

In A.D. 1324 in the work of King Edward II. at Westminster, pitch was mixed with mortar.

The permanency of the Roman stuccoes may be partially accounted for by the use of oil mixed with mortar. Although Vitruvius used hog's lard, an animal oil, the mortars have withstood the action of the centuries, and in places where freezing temperature occurs in winter and great heat in summer. However, the hog's lard must have been very thoroughly emulsified by the action of the hydrated lime. Portland cement was unknown at that period.

In this connection I would like to suggest the following specifications for stucco, the third or finish coat:—

One part Portland cement, 20 per cent. (volume of cement) of hydrated lime, three-parts coarse white sand. First, dry-mix the sand and cement, and with this mix dry hydrated lime, turning each three times with shovels; rake while shovelling. Add water, turning and raking until the desired consistency is obtained. Then add 15 to 20 per cent. of white oil petrol, the oil to be by weight in percentage to the weight of the cement. A gallon of oil petrol weighs seven and a-half pounds. Apply this mortar while the scratch coat is damp, and as soon as scratch coat is firm enough to stand the pressure or plastering. If it be desirable to tint the stucco, colour the oil with any limeproof colouring matter, in proportion which by experiment with small samples is necessary to give the desired tint.

A white non-volatile mineral oil is suggested for stucco and for mortar to be used in setting white marble or light-coloured brick, on account of the colour possibilities. For concrete, where the colour is not essential, the heavy black bituminous oils to the light non-volatile petroleum oils are successful. They are cheap, and their name is legion. Do not use oils containing organic matter, and positively avoid, at least for the present, and until further experiments have been made, vegetable or animal oils, as they are liable to form an acid, which in turn may disintegrate the concrete. Lime, sand and animal oils have stood the test of centuries. Portland cement and animal oils have not yet had this opportunity. It is within the range of possibility that the test of time may prove contrary to the theory, and animal oils emulsified be found not dangerous.

THE ANGLO-MAIKOP CORPORATION, LTD.

STATUTORY MEETING OF SHAREHOLDERS.

The statutory meeting of shareholders of the Anglo-Maikop Corporation, Ltd., was held at 56, Moorgate Street, E.C., last Thursday week—the Hon. Frederic W. Anson taking the chair.

The Secretary of the Corporation—Mr. S. H. Rogers—having read the notice convening the meeting, the Chairman explained that the report, which had been circulated amongst the shareholders, shewed that nearly 90 per cent. of the ordinary shares issued—that was, 89,150 ordinary shares—had been allotted, together also with 97,828 out of 100,000 of the deferred "B" shares. Over 10 per cent. of the capital had been allotted to Russians on the spot, which he looked upon as most satisfactory, as it shewed the confidence which was felt by those who were best able to judge the merits of the properties. One feature which he was sure would be very gratifying to every shareholder, and in which their company differed from so many others, was that not a single one of those issued shares had been issued fully paid up, or partly paid up, but every shareholder had paid in cash to the company the amount credited upon his shares. In other words, every penny of the nominal capital of their company had been paid up in actual cash. The amount called up on their ordinary share capital up to date was 10s. per share, and as the operations of the company appear to the board to be likely to yield remunerative returns from the whole capital, the board contemplated making further calls until it was all paid up.

Proceeding, the Chairman said, in addition to the directors whose names appeared on the prospectus, two additional directors had been elected—namely, myself and Mr. A. O. Goukassow, a Russian gentleman of great experience in the petroleum world, and associated with the ownership and practical control of one of the most successful petroleum concerns at Baku.

It is, of course, too early in the history of the company to expect any report at this meeting with regard to the operations of the company, but some information I am in a position to give you. First of all, I would like to emphasise for the benefit of those shareholders who have acquired shares since the issue of the prospectus the natural advantages this field has over the other fields in South Russia. Maikop lies about 50 miles from the port of Tuapse, on the Black Sea, while it is only about 50 or 60 miles from Ekaterinodar, which is the railway centre for the district. The cost of the conveyance of the oil from the field to Tuapse is estimated at 7s. per ton, whereas the cost from Baku, the other great oil centre in South Russia, to Batoum, the port of shipment, is 24s. Another extremely important point which must not be lost sight of is the fact that the oil series lie at such a shallow depth. Oil has already been discovered in large quantities at the depth of 400 feet, and when you consider that most wells have to be sunk from anything between 1 and 3,000 feet, and even deeper, the saving of expense in the construction of wells, as also the time saved to arrive at the producing stage, will be quite apparent to you. Your company, which was the first having interests in Maikop to make an issue to the public, you will remember, was formed to take over the negotiations for a number of valuable options on the newly discovered oil field in that district. Negotiations were at that time in progress relating to upwards of 50 plots (each plot being 27 acres in extent) and distributed over the area of the oil field. The intention of the company was to take up such of these plots as were approved and to form or assist in forming new companies and concerns as might be deemed advisable for the purpose of exploiting and developing the same.

With regard to these properties, which were the subject of negotiations at that time—namely, McLaren (3 plots), Kamansky (1 plot), Wilenkin (22 plots), Kochnitzy (9 plots) and Kuban Naptha Syndicate (28 plots)—the company have continued these negotiations, and have definitely purchased all the foregoing, except the Wilenkin. In addition to the foregoing plots, the directors have acquired another four plots, the total price of which is 40,000 roubles, roughly equal to £4,000, of which 20,000 has been paid, and the balance of 20,000 roubles is due when the production reaches 20,000 poods per month. When you consider that this company owns 45 plots, the majority of which are most favourably situated, you will readily appreciate the enormous possibilities it possesses when I tell you that it only requires one of this number to be a success to ensure a return by way of dividends to the shareholders far exceeding the capital of the company. To illustrate this, I may mention that one company, which only worked one plot of 27 acres in the Baku district, was able, with a capital of £1,000,000, to pay in five years 165 per cent. on its ordinary shares, which constituted half the capital. The number of the plots being far too many to be worked by one company, it is the intention of your directors, as already stated, to float off subsidiary companies to take over certain of them, and they anticipate that they will find no difficulty when the time comes in influencing financiers of the highest standing to participate in the flotations. Your company will then be receiving handsome returns on the shares it will possess as vendor, thus ensuring to its shareholders the payment of regular dividends. In fact, it will resemble in this respect the large South African finance companies which have been such a feature of success in connection with the gold mining industry of that country. It will be remembered that it was stated in the prospectus that as regards one of the options for a single plot, subject to royalties amounting to 2½ copecs per pood placed at the disposal of the company on the terms of 15,000 roubles (about £1,500) cash, the company had already received an offer of £2,500 cash and £5,000 in shares for that plot alone. The directors considered this offer, as well as other offers at increased prices, which, however, they have declined. The prices now being paid for plots all over the field are three or four times more than the prices paid for the plots acquired by the company; in fact, the price of those in the immediate neighbourhood of the fountain is now as much as 100,000 roubles each, as against our purchase price of about 15,000 roubles. Since it is anticipated that the fountain already struck is only one of many more likely to be found in the near future, it is to be expected that prices all along the field will rise in the same proportion as those adjoining the plot on which the fountain has been struck. Petroleum has been known for many years to exist at Maikop, but it was not realised until a few months ago that it was present in such payable quantities and could in all probability be worked to such great advantage. The projection of a new branch railway from the port of Tuapse to join on at Armavir with the trunk lines of the Caucasus, and which as designed would pass within 10 or 12 miles of the Maikop district, was one of the events which directed attention to the possible capabilities of Maikop. This railway was undertaken under Government guarantee, and the loan for it successfully floated in London last year, and its construction has now commenced. Two of the concerns that were first on the field for practical operations were the Baku Black Sea Petroleum Co., which, I believe, was a Russian concern, and the Black Sea Oil Fields, Ltd., a company with which some of our directors are also associated.

I need not repeat to you at length to-day the statements in the prospectus with regard to the great oil fountain on the Baku Black Sea Petroleum property, at Maikop, which burst out on the 12th September last and which is stated to have thrown out upwards of 30,000 tons of petroleum in six days. This fountain has continued flowing to the present day, defying all attempts to control it. Although this fountain has served to attract general attention to the oil field of Maikop, it has also in a way somewhat retarded the actual progress. An enormous quantity of petroleum has inundated the immediate neighbourhood, and finally found its way into the Kuban River, killing the fish there and causing damage in many other ways. There has been, not unnaturally, an outcry among the local peasantry, which has resulted in the Government putting a temporary stop to the opening up of further wells until suitable storage has been provided. In consequence, most of the work done during the last few months has been that of constructing earthen reservoirs on the various plots. Sir Boverton Redwood, Mr. Eastlake and other experts had already stated that, in their opinion, the district was highly petroliferous, but this fountain at once put an end to all doubts, and it was admitted in the petroleum world that a new and probably very rich oil field had been discovered, and there was the inevitable rush to the ground of prospectors, investors and other interested persons. Originally the acquisition of plots was made on behalf of the local people, but of late quite a large number of purchases have been made on behalf of London financiers, including some of the highest standing. I understand that at no distant date quite a number of companies will be brought out for the purpose of dealing with these plots, and in the event of the field developing anything like as well as is anticipated, there will be quite an active market on the London Stock Exchange devoted to dealings in shares of companies whose operations are at Maikop. The board are not able to-day to give much additional information as to the progress made. The middle of the winter is not a good time for getting heavy machinery from a distance delivered to a place where the existing roads are not capable of standing the traffic, and it will therefore be necessary to wait for two or three months before any serious development work on a large scale can be expected. However, there are 20 or 30 different firms only awaiting for favourable weather to commence operations, when, no, doubt a great deal of information will be forthcoming.

In the meantime there has been very great activity at Maikop. The local government are doing their best in every way to facilitate the development of the new industry. A committee has been formed on lines similar to the Baku Oil Producers' Association, under the auspices of the Governor, to make suitable arrangements for improving the means of communication and generally for purposes of common interest to the whole field. You will be pleased to hear that we are well represented on this committee.

Proceeding to speak of the Corporation's plots, the Chairman said: Oil has been struck on plot 616 at 300 feet, which improves the prospects of our Nos. 579 and 599. Wells on plot 370 and 436 are in oil, but we have not yet been able to get the depth. Samples of the strata from a well on the plot adjoining our 342 at 280 are similar to Baku Black Sea Oil Fields well. On the plot between 381 and 354 there is a new well which has been capped and which has indications exactly like those of the fountain well. In plot 102, adjoining our plot 91, oil has been struck, and on plot 104, to the south of plot 91, they have found the same indications. In the meantime one of our managing directors—Mr. George Tweedy—is now on the spot, carefully watching the progress of events and attending to the interests of the company. By taking over a number of shares, we have been given an option for a considerable period over a large part of the unissued preference capital of the Black Sea Oil Fields Co., and as it is expected this company will be one of the first producers on the field, as well as a very prolific one, as it owns, among others, four plots in the immediate neighbourhood of the fountain—one of them only 30 yards from the fountain—we have every reason to hope that this deal will turn out a profitable one. There is one other subject of interest I should like to refer to. It is proposed to form a company to build a pipe line to convey the oil to the coast and railway. The company would charge a certain sum for all oil conveyed through its pipe line, and would then receive a large revenue. I think the success of such a company is practically assured, and I am glad to say there is very little doubt that your company will participate in providing the capital. Gentlemen, it only remains for me to move formally that the statutory report, as certified by two directors and the auditors, be received and recorded, and when this has been done the only other business to transact at this meeting will be the election of auditors for the ensuing year, which should be proposed otherwise than from the board.

The Hon. GEORGE NICHOLAS DE YARBURGH-BATESON seconded the resolution.

Mr. TREW asked what was the greatest depth attained on the field at present.

Mr. OTTO KRISHABER said he did not believe anybody had gone beyond a depth of 300 or 400 feet, where oil was found. It was supposed that a deeper oil strata existed, but the field was not old enough yet for that to have been found, as people would naturally stop sinking when they reached the first oil.

Mr. TREW: I have heard a rumour that one well had been sunk 1,000 feet.

Mr. KRISHABER: I should not think so; it is almost impossible in the time.

The resolution was then put to the meeting, and carried unanimously.

On the motion of Mr. TREW, seconded by Mr. BETTS, Messrs. Harmood Banner and Son were re-elected auditors.

The CHAIRMAN said the thanks of the shareholders were due to Mr. George Tweedy and Mr. Krishaber, the managing directors, for the extraordinary amount of work they had done for the company since it was started.

Dr. DVORKOVITZ moved a vote of thanks to the chairman and directors, and congratulated the company on having secured its capital on such reasonable terms. The company was also to be congratulated on the composition of the board. They had Mr. Tweedy, who had been associated with the actual management of petroleum undertakings for the past twelve years; Mr. Krishaber, a well-known financier in the City; and Mr. Rutherford, a gentleman of high legal standing. He thought he should also congratulate the company on having secured Mr. Goukassow, who had been associated with the management of large concerns in Baku. Thanks were also due to the Chairman for the very able and lucid speech which he had made, giving the details of the company's position.

Mr. BETTS seconded the resolution, and it was carried unanimously.

The CHAIRMAN briefly acknowledged the vote, and the proceedings terminated.

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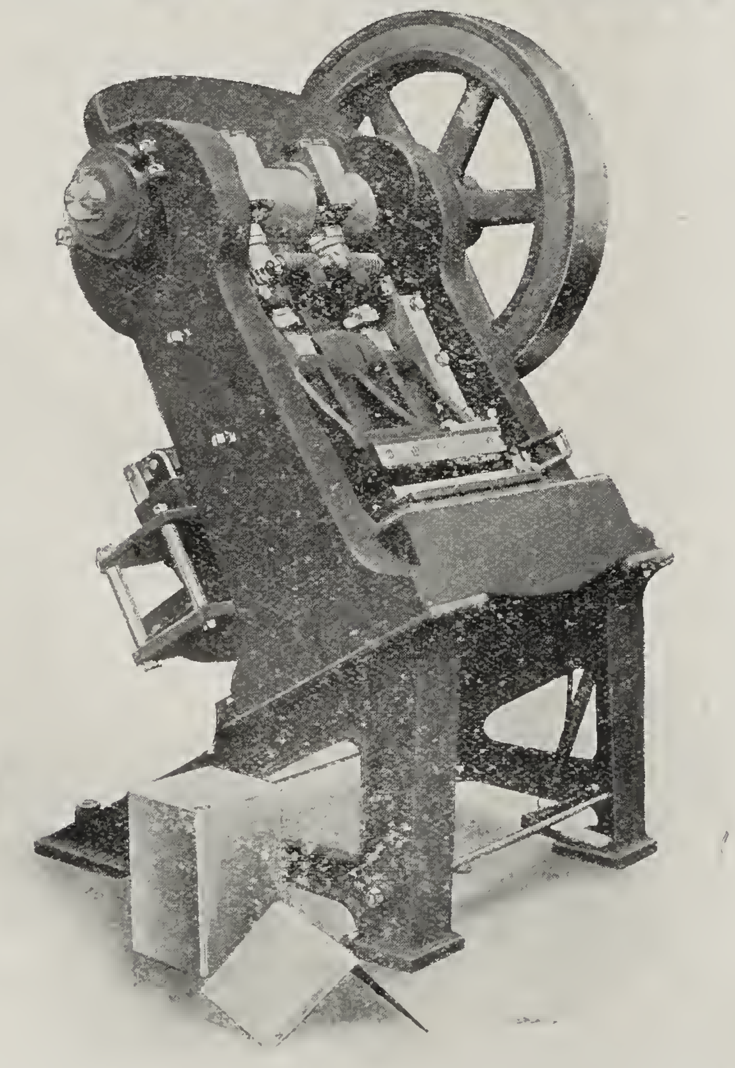

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The American Oil Market.

New York, Week ended Feb. 11th.

A further decline in development work in the Eastern petroleum fields has marked the interval, weather conditions still tending to obstruct operations. The new production column for the week, however, records a material gain over that previously noted, chiefly as a result of Illinois returns. West Virginia finished second in new production, although the total was below that of the former week. The Shinnston pool of Harrison county, West Virginia, occasioned renewed interest following the extraordinary result achieved from "shooting" a well which came in a few days ago as a light producer. It responded to the charge at the rate of 70 barrels an hour, says the *Oil, Paint and Drug Reporter*, and the first twenty-four hours' production was given as 920 barrels. The following day it was credited with 1,025 barrels, but an early decline in the output was expected. The well is within the defined limits of the pool. To the north-west a late test was reported to have flowed at the rate of 15 barrels an hour, the first twenty-four hours' production being given as 365 barrels. Another encouraging result was reported east of the pool, a well yielding 280 barrels in the first twenty-four hours after the fifty-foot formation had been reached. The eastern development of the Shinnston pool is now regarded as the only one to offset the decline of the older formation. Previously to the bringing in of the good producers there had been a marked decrease in the output of the pool to about 5,000 barrels a day, but the new wells brought it up to 6,000 barrels. Another interesting development in West Virginia has been the record of completions in the thirty-foot formation of Marion county. Some of the wells were rated as century, or better, producers, and development work assumed broader scope. Lincoln county was the scene of active operations, and one of the week's completions was reported as a "wildcat," good for 10 barrels a day in the Big Lime formation. In the established field a 50-barrel producer was brought in. The well of exceptional capacity drilled a few days ago in the Grant district of Ritchie county, credited with 400 barrels a day, has since declined to 200 barrels. Among South-eastern Ohio operations interest centres in the activity at Bremen, Fairfield county, which is now under a town lot excitement. New interest was stimulated in the Lawrenceville section with the bringing in of a 200-barrel well which promised to mark a considerable extension of the defined field. Work in Kentucky for the week has brought some improvement in results, two wells each of 30-barrels' capacity affording prospects for the development of territory which has been only partially tested. Operations in upper Kentucky fields are retarded by the prevalence of low prices as well as by the continued unfavourable weather conditions. Advices from the mid-continent note more favourable results from the Preston pool of Oklahoma, the daily production having been increased to 8,000 barrels a day.

Refined and Products.—Conditions governing the local market for refined have undergone no appreciable change within the interval, and the general movement continues within moderate limits, the same degree of conservatism being induced by the status of crude. The export outlet does not seem to shew any broadening tendency with the advance of the year and the aggregate so far remains considerably below that of the corresponding period of last year. Satisfaction has been expressed as to the more favourable outlook with regard to trade relations with Germany, but the discrimination against the American petroleum products by France is undoubtedly a factor of much importance in the curtailment of foreign requirements of refined. The demand for the products for gas engine consumption has continued of steady proportions and with available stocks kept within well regulated limits, values are maintained with apparently the same degree of stability, the effect of the crude situation being minimised. Clearances of naphtha from the local port were fairly large, 1,054,170 gallons, against 1,465,060 gallons for the previous week.

CLOSING QUOTATIONS.

Crude at the Wells.

The quotations for oil represented by credit balances were :—

	Week ended Feb. 11. 1909.	Week ended Feb. 11. 1910.
Pennsylvania	$1·78	$1·40
North Lima	1·04	0·84
South Lima	0·99	0·79
Indiana	0·99	0·79
Illinois, heavy, below 30 deg.	0·60	0 52
Kansas and Indian Ter., 30 deg. and above	0·41	0·35
Heavy	0·28	0·28
Humble, Tex.	0·53	0·75
Saratoga	0·53	0·75
Sour Lake, Tex.	0·53	0·77
Jennings, La.	0·55	0·54
Canadian Oil :—		
Petrolia	1·44	1·24
Oil Springs, less pipeage	1·51	1·31

Refined—For Export.

In cents.		Week ended Feb. 11. S.W. 110 test.	W.W. 150 test.
Barrels, cargo	per gal.	7·90	@ 9·40
Philadelphia		7·90	@ 9·40
Bulk, New York		4·40	@ 5·90
Bulk, Philadelphia		4·40	@ 5·90
Cases, New York		10·30	@11·80
Cases Philadelphia		10 30	@11·80

Refined in Cases—110 Fire Test.

	Week ended Feb. 4. 1910.	Feb. 11. 1910
3,000 to 10,000	10·45	10·45
1,000 to 3,000	10·50	10·50

Refined—Jobbing Lots.

In barrels, pkgs. included.

	Week ended Feb. 4.	Feb. 11.
130 fire test, S.W.	11¼	11¼
150 fire test, W.W.	11¾	11¾
In bulk from tanks	9	9

Naphtha and Gasolene.

	Week ended Feb. 4.	Feb. 11.
Naphtha, V. M. and P. deod.	12	12
Gasolene, 86 deg.	21¾	22¾

Pennsylvanian Oil Runs from February 3rd to February 8th were:—February 3rd, 236,852*; February 4th and 5th, 279,891*; February 6th, 237,957*; February 7th, 61,859; February 8th, 176,005*.

The Deliveries of Pennsylvanian Oil from February 4th to February 9th were:—February 4th, 149,514*; February 5th and 6th, 257,175*; February 7th, 348,767*; February 8th, 175,807; February 9th, 199,440*.

* Includes Illinois Oil.

Clearances for the Week.

During the week ended Feb. 10th and since Jan. 1, the clearances of petroleum, in gallons, from the port of New York, were as follows:—

	Week.	Year.	1909.
Refined	7,133,230	52,021,230	65,269,630
Crude	7,500	904,895	5,276,030
Naphtha	1,054,170	8,617,605	1,807,330
Residuum	9,500	515,500	60,850

Export Statistics.

The total exports from the port of New York and from the United States have been:—

	Gallons.
From New York, week ended Feb. 10th	9,518,473
Total from New York, from Jan. 1st, 1910	70,266,535
Same period last year	92,303,203
Decrease	22,036,658
From United States, week ended Feb. 10th	15 456,567
Total from United States, since Jan. 1st, 1910	105,685,926
Same period last year	161,359,540
Decrease	55,673,614

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The "Review" Shipping List.

February 25, 1910.

(*The following abbreviations are used in this table:*—L. Left; P. Passed; Arr. Arrived; Sp. Spoken; Tr. Trading.)
Anglo-American Co.'s vessels marked thus (□): the Anglo-Saxon Co.'s tankers thus (*): and Messrs. Lane and Macandrew's thus (†).

Vessel.	From.	For	Latest Date and Position.
ALCHYMIST	Selzaete	Seville	P. Beachy Head, Feb. 14
ALICE ET ISABELLE (Fr. bq.)	New York	Rouen	In Port, Jan. 31
AMERICAN	Antwerp	New York	P. Prawle Pt., Feb. 14
APPALACHEE □	Hamburg	New York	P. Dunnet Head, Feb. 9
APSCHERON	Antwerp	Batoum	P. Constant'ple, Feb. 22
ARAL	Tuborg	Tyne	In Port, Feb. 22
ARAS	London	Penarth	F. Dover, Feb. 22
ASHTABULA □	Singapore	San Francisco	Arr. Feb. 6, in Port, Feb. 11
ASTRAKHAN	Rotterdam	Tyne	In Port, Feb. 22
AUGUST KORFF	Philadelphia	Manchester	Arr. Jan. 14, in Pt. Feb. 23, sold U.K. and named "Lackawanna"
AUGUSTA	Brunsbuttel	Hamburg	Arr. Jan. 18, in Port, Feb. 22
AUREOLE	Antwerp	Amsterdam.	L. Feb. 23
AZOV	Tyne	Callao	P. Beachy Head, Feb. 8
BAKU STANDARD	Cardiff	Tyne	In Port, Feb. 22
BALAKANI†	Tyne	Grangem'uth	L. Feb. 23
BATOUM	London	Tyne	Arr. Jan. 21, in Port, Feb. 22
BAYONNE	Batoum	Algiers	Cld. Messina, Feb. 18
BEACON LIGHT	Hamburg	Barry	P. Lizard, Feb. 23
BLOOMFIELD	Port Arthur (Texas)	London	Sd. Norfolk (Va.), Feb. 17
BORJOM	—	—	Tr. b'tw'n Black Sea & Levant
BRILLIANT	Philadelphia	Swinemunde	L. Feb. 17
BRILLIANT (Br. bq.)	Bombay	Baltimore & Philadelphia	L. Jan. 5
BRITISH SUN	Port Arthur (Texas)	London	L. Feb. 4
BROADMAYNE	Tonsberg	Tyne	In Port, Feb. 22
BUFFALO	New York	Hamburg	L. Feb. 19
BULLMOUTH*	Bombay	Aroe Bay	L. Feb. 14
BULYSSES*	Karatzu	Singapore	Arr. Feb. 20 and Sd. Feb. 24
BURGERMEISTER PETERSEN	Hamburg	New York	Sd. Tyne, Feb. 22
CADILLAC	Karikal	Bengkalis	L. Jan. 30
CALCUTTA (B.b.) □	Yokohama	San Francisco	L. Jan. 28
CAMILLO (Late "Joyo Maru")	Brunsbuttel	Barry	Arr. Feb. 23
CAPTAIN A. F. LUCAS	Boston	New York	Arr. Feb. 11, in Port, Feb. 12
CARDIUM*	London	New York	Arr. Feb. 18
CARPATHIAN†	Cardiff	Port Arthur (Texas)	Arr. Feb. 22
CAUCASIAN†	Tyne	Philadelphia	P. Dunnet Head, Feb. 3
CHARLOIS	Rotterdam	New York	P. Lizard, Feb. 17
CHESAPEAKE □	New York	Bombay	Arr. about Feb. 7
CHESTER	Antwerp	Philadelphia	P. Lizard, Feb. 22
CHEYENNE	Savona	Philadelphia	P. Tarifa, Feb. 8
CITY OF EVERETT	New York	Port Arthur (Texas)	P. Cape Hatteras, Feb. 15
CIUDAD DE REUS	Barcelona	Batoum	To sail Barcelona, Feb. 20
CLAM*	Balekpappan	Hong Kong	L. Feb. 15
CLEARFIELD	Batoum	Rouen	Sd. Portland, Feb. 22
CONCH*	Rotterdam	Tyne	Arr. Feb. 15, in Port, Feb. 22
CONRAD MOHR	Philadelphia	Christiana	L. Feb. 5
COWRIE*	Calcutta	Samboe	Arr. Feb. 20
CUYAHOGA □	New York	Venice	P. Cape Spartel, Feb. 20
CYMBELINE	Campana	St. Lucia	Sd. Buenos Ayres, Feb. 20
CZAR NICOLAI II.	Batoum	Hamburg	Sd. Dunkirk, Feb. 23
DAGHESTAN	Hamburg	Batoum	P. Prawle Pt., Feb. 15
DAKOTAH □	San Francisco	Shanghai	L. Feb. 5
DANUBIAN†	Newport Nws	Amsterdam.	L. Feb. 23
DELAWARE □	Avonmouth	New York	Arr. Feb. 19
DERBENT	Batoum & Thameshaven	Antwerp	Arr. Feb. 22
DEUTSCHLAND	New York	Copenhagen	L. Feb. 20
DIAMANT	Hamburg	New York	P. Dunnet Head, Feb. 11
EDWARD DAWSON	Batoum	London	P. Sagres, Feb. 21
EL LOBO	San Francisco	Payta	L. Feb. 4
ELAX*	Hong Kong	Palembang	L. Feb. 20
ELISE MARIE	Stettin & Tyne	Philadelphia	P. Dunnet Head, Feb. 23
ENERGIE	Philadelphia	Hamburg	P. Prawle Pt., Feb. 21
ERIVAN	Batoum & Thameshaven	London	Arr. Feb. 21
EUPLECTELA*	Balekpappan	Shanghai	L. Feb. 14
EXCELSIOR	New York	Rotterdam	L. Feb. 12
FRANCE MARIE (French bq.)	Santander	Marseilles	In Port, Feb. 22
GEESTEMUNDE	Bremerhaven	New York	In Tyne, Feb. 22
GENESSE □	London	Philadelphia	P. Scilly, Feb. 12
GEORGIAN PRINCE	Vallo	Tyne	Arr. Jan. 31, in Port, Feb. 22
GOLDMOUTH*	Singapore	Europe	At Port Natal, Feb. 19
GUTHEIL	Matanzas	New York	Arr. Feb. 10. in Port, Feb. 12
H. C. HENRY	Tees	Seattle	Sd. Madeira, Feb. 18
HAINAUT (Du. sh.)	Antwerp	New York	Sp. Feb. 6, 36 N., 69 W.
HARRY WADSWORTH	Sabine	London	L. Feb 15
HELIOS	Philadelphia	Hamburg	P. Del. Break., Feb. 15
HERMIONE	Rangoon	—	L. Feb. 22
HESPERUS	Tyne	New York	P. Dunnet Head, Feb. 11
HOTHAM NEWTON	Zeebrugge	Hull	In Port, Feb. 23, laid up
HYRCANIA	Manchester	Batoum	P. Gibraltar, Feb. 23
IOANNIS COUTZIS	Piræus	Batoum	Cld. Constant'ple, Feb. 18
IROQUOIS □ (towing barge Navahoe)	London	New York	P. Beachy Head, Feb. 23
J. B. AUG. KESSLER	Barrow	Novorossisk	L. Feb. 9
JAMES BRAND	Tyne	New York	L. Feb. 11
JULES HENRI (French bq.)	Cette	Marseilles	In Port, Feb. 22
KURA	Kustendje	Manchester	In Port, Feb. 23
LA CAMPINE	Antwerp	Tyne	In Port, Feb. 22
LA FLANDRE	Antwerp	Philadelphia	P. Prawle Pt., Feb. 14
LA HESBAYE	Kustendje	Antwerp	In Port, Feb. 22
LACKAWANNA □	London	Hamburg	In Port, Feb. 22, & sold Germany
LE COQ†	Bordeaux	Kustendje	P. Lacoubre, Feb. 21
LOUTSCH	Cette	Constant'ple	L. Feb. 18
LUCERNA	Ghent	Novorossisk	P. Dungeness, Feb. 17
LUCIGEN	Trial Trip	Tyne	In Port, Feb. 22, laid up
LUCILINE†	Cardiff	Kustendje	L. Feb. 12
LUMEN	Calais	Tyne	In Port, Feb. 22
LUTETIAN†	Newport (Mon.)	Tyne	Arr. Feb. 11
LUX†	Cardiff	Novorossisk	L. Feb. 14
MANHATTAN	Tunis	—	P. Gibraltar, Feb. 18/19
MANNHEIM	Tyne	New York	P. Dunnet Head, Feb. 9
MARGARETHA	Baltimore & Leghorn	Portici	Sd. Leghorn, Feb. 17
METEOR	Vladivostock	Nagasaki	Arr. Dec. 31
MEXICAN PRINCE	Tyne	Cienfuegos	L. Feb. 4
MINA BREA	Caleta Buena	Callao	In Port, Dec. 31

Vessel.	From.	For.	Latest Date and Position.
MINHLA	Rangoon	Calcutta	L. Feb. 12
MIRA	Calais	Blyth	In Port, Feb. 23
MUREX*	Port Natal	Singapore	Arr. Jan. 29, in Port, Feb. 2
NARRAGANSETT	London	New York	In Wireless Com., Feb. 12, 12.40 a.m.
NAVAHOE	London	New York	Off Dungeness, Feb. 23, in tow of "Iroquois"
NEW YORK □	Rotterdam	New York	P. Prawle, Feb. 11
NIAGARA	Singapore	Sabang	L. Feb. 7
OBERON	Pt. San Luis	Tocopilla & Taltal	At Tocopilla, Feb. 9
OCEAN	Amsterdam	Kustendje	P. Gibraltar, Feb. 15/16
OILFIELD	Rouen	Tyne	Arr. Nov. 1, in Port, Feb. 22
ORIFLAMME†	Rouen	Havre	Arr. Feb. 22
OTTAWA □	Sunderland	New York	Arr. Feb 7, in Port, Feb. 12
OURAL	Rouen	Antwerp	Arr. Feb. 22
PATELLA*	Samboe	San Francisco	L. Feb. 19
PAUL PAIX	Calais	Tees	In Port, Feb. 22
PAULA	Tyne	Philadelphia	Arr. Feb. 20
PECTAN	San Francisco	Ancon	Sd. P. San Luis, Feb. 2
PENNOIL	Philadelphia	Rotterdam	Arr. Feb. 19, in Port, Feb. 22
PETROLEA	Gothenburg	Hull	Arr. Feb. 21
PETROLEINE	Kustendje	Cette	Cld. Constant'ple, Feb. 16
PHOEBUS	New York	Rotterdam	Arr. Feb. 17, in Port, Feb. 22
PINNA†	Dalny	Singapore	L. Feb. 11
POTOMAC □	London	Dublin	In Downs, Feb. 20
PROGRESSO ARGENTINA (Ar. bq.)	Port Arthur (Texas)	Buenos Ayres	Arr. Dec. 10
PROMETHEUS	New York	Nordenhamn	L. Feb. 12
PRUDENTIA	Hull & Norfolk (Va.)	New Orleans	P. Cape Henry, Peb. 12
PURELIGHT	Hamburg	Philadelphia	Arr. Feb. 20
QUEVILLY (Fr. bq.)	Rouen	Havre	In Port, Feb. 22
RENDOVA (Br. bq.)	Bonanza	Sydney	Arr. Feb. 8
RION	Blyth	Batoum	P. Prawle, Feb. 23
ROCK LIGHT†	Bermuda	Galveston	L. Feb. 18
ROMANY*	Yokohama	Aomori	L. Feb. 20
ROTTERDAM	Amsterdam	New York	P. Scilly, Feb. 21
ROUMANIAN†	Kustendje	Hull	P. Gibraltar, Feb. 22
RUSSIAN PRINCE	Havana	Liverpool	Arr. Feb. 22
SALAHADJI*	Singapore	Balekpappan	L. Feb. 18
SAN ANTONIO	London	Southampton & P. Mexico	At Southampton, Feb. 20
SAN IGNACIO DE LOYOLA (Sp. bq.)	New York	Pasages	L. Jan. 26
SANTA MARIA	Honolulu	Pt. San Luis	L Jan. 29
SANTA RITA	Port Harford	Guatemala	L Feb. 9
SARANAC □	Liverpool	New York	P. O. Hd. Kinsale, Feb. 13
SAXOLEINE	Kustendje	Rouen	Arr. Feb. 22
SEMINOLE □	Shanghai	San Francisco	Arr. Feb 21
SERVIAN†	Halifax	Manchester	Arr. Eccles, Feb. 22
SNOWFLAKE	Cette	Newport	In Port, Feb. 23
SOYO MARU	Honolulu	Payta	L. Jan. 18
SPONDILUS*	Samboe	Europe	P. Cape Agulhas, Feb. 16
STANDARD	Tyne	New York	P. Dunnet Head, Feb. 7
STROMBUS*	New York	British India	Sd. St. Michael's, Feb. 20
SULTAN VAN LANGKAT*	Palembang	Samboe	Arr. Feb. 22
SUNLIGHT (Br. bq.)	Avonmouth	W. Indies	Sp. Jan. 16, 52 N., 7 W.
SURAM	Penarth	Kustendje	P. Gibraltar, Feb. 22
SUWANEE □	New York	Tampico	L. Feb. 14
SVIET	Kustendje	Alexandria	L. Feb. 19
TAMARAC □	Philadelphia	London	P. Del. Break., Feb. 13
TELENA*	Kustendje	Alexandria	Arr. Feb. 22
TEREK†	Kustendje	Hamburg	P. Gibraltar, Feb. 22
TEXAS	New Orleans	Port Arthur (Texas)	Arr. Nov. 13
TIFLIS	Philadelphia	Hamburg	Arr. Feb. 23
TIOGA □	Philadelphia	Dublin	Arr. Feb. 21
TONAWANDA □	Tyne	Philadelphia	L. Feb. 20
TRINCULO	Pt. San Luis	Panama	L. Feb. 4
TROCAS*	Singapore	Shanghai	Arr. Feb. 10
TUSCARORA	New York	Port Said	P. Sagres, Feb. 17
VEDRA	Liverpool	Batoum	P. Gibraltar, Feb. 13/14
VILLE DE DIEPPE (Nor. bq.)	Philadelphia	Rouen	In Port, Jan. 24, laid up
VOLUTE*	Singapore	Soesoe	Arr. Feb. 20
WASHINGTON	Philadelphia	Hamburg	In Port, Feb. 22
WASHTENAW	Port San Luis	Astoria	Arr. Jan. 26
WEEHAWKEN	New York	Barrow	Arr. Feb. 22
WILLKOMMEN	Philadelphia	Swinemunde	L. Feb. 19
WINNEBAGO	Balekpappan	New York	In Port, Feb. 12

Latest Market Intelligence.

LONDON OIL MARKET.

Supplied by Messrs. Benjamin & Gee, 31, St. Mary Axe, E.C.

Feb. 25th, 1910.

The market price of Petroleum remains unaltered, and has not been altered from the price quoted in June last. The current prices are for: - Russian, 5¾d.; Roumanian, 7d.; American, 6d.-6¼d.; Water White, 7d.-7¼d.

LUBRICATING OILS.

The latest quotations are for:—

American pale, £6 10s. to £9 10s.
American dark cylinder, from £7 12s. 6d.
American filtered cylinder, from £10 12s. 6d.
No. 1 Russian, for Spot, £8.

TURPENTINE.

American Turpentine is as usual having its ups and downs, and the Spot price has remained and still remains about 42s., for March-June about 3d. more, and July-December, 39s.

LIVERPOOL OIL MARKET.

Feb. 24th.

Refined oils are quiet, and sellers quote 6d., for Russian, Galician or Roumanian; and 6½d. to 7d. per gallon for American.

LATEST AMERICAN PRICES.

New York, Feb. 24th.

Refined, in cases, is steady at 10·30; Standard White, 7·90; Credit balances, 1·40.

Philadelphia, Feb. 24th.

Standard White is now quoted at 7·90.

GERMANY.

Hamburg, Feb. 24th.

The petroleum market is without any change. American, ·800–6·30 marks; Pennsylvanian, 6·40 marks; Galician, 6·30 marks. Russian and Roumanian not on the market.

RUSSIA.

Baku, Feb. 22nd.

The market is now without change. Crude oil is quoted at 18¼-18½ copecs per pood spot. Kerosene, in ships, 23¾ copecs spot; 27 copecs next navigation. Mazout 19 copecs. Export at Batoum is stagnant.

BELGIUM.

Antwerp, Feb. 23rd.

The petroleum market is without change. Price of Standard White, spot, 22·50 francs per 100 kilos.

ROUMANIA.

Feb. 23rd.

	Francs.
Crude oil from different fields, including pipe line charges, per 100 kgs.	3·50–3·60
Refined oil, exclusive of taxes, ex. refinery	8·30
Residuals in tank waggons, at refinery	3·50–3·60
Paraffin	110–120

Prices for Export.

Refined oil, f.o.b., per 100 kgs.	6·00–6·50
Benzine, sp. gr. 0·710–0·715, f.o.b.	16–17
„ sp. gr. 0·715–0·720 „	14·50–15·50
„ sp. gr. 0·730–0·740 „	10–11
„ sp. gr. 0·745–0.755 „	9–10
Lubricating, horticultural	33
„ prime	36
„ extra	42
„ Royal, "Steaua Romana"	45
Imperial "Aurora"	46
Vacuum-Ideal "Vega"	52

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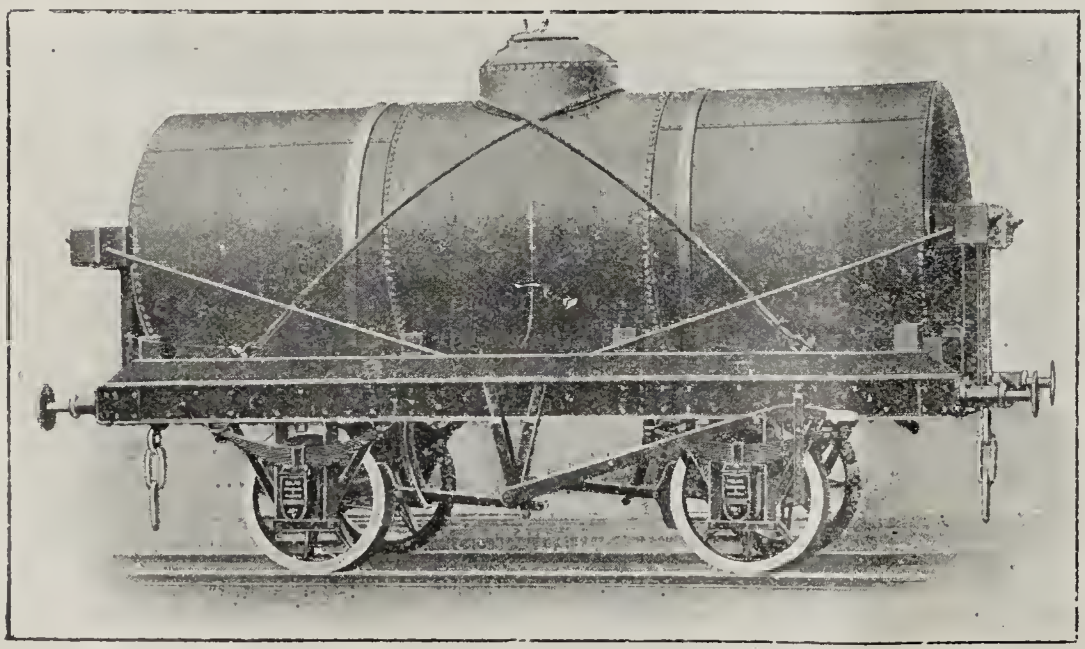
IMPORTS of PETROLEUM into UNITED KINGDOM

Specially prepared for this Journal by the Custom House.

FOR THE WEEK ENDED FEBRUARY 14TH, 1910—

Date.	Port and Importers.	Description.	No. of Gals.	Port Whence
Feb.	LONDON—			
8	Anglo-American Oil Co.	Lub.	55,200	Philadel.
8	Port of London Authority	,,	6,000	New York
8	B. Jacobs and Sons	,,	4,450	,,
8	Mordaunt Bros.	,,	5,000	,,
8	Fielder, Hickman and Co.	,,	20,040	,,
8	Pickfords, Ltd.	,,	60	Rotterdam
8	Port of London Authority	,,	840	Hamburg
8	,,	,,	400	Antwerp
8	British and Foreign Wharf.	,,	240	,,
9	Port of London Authority	Lub. Gr.	280	New York
9	Anglo-American Oil Co.	Lub.	135,000	,,
9	G and H. Green	L.Comp.	4,230	,,
9	Mercantile Lighterage Co.	Lub.	30,250	,,
9	Beck and Pollitzer	,,	400	,,
9	T. H. Lee	Lub. Oil and Gr.	1,220	Hamburg
10	Port of London Authority	Lub. Gr.	280	New York
10	Anglo-American Oil Co.	Lub.	4,000	,,
11	T. H. Lee	Lub. Gr.	440	Hamburg
11	Port of London Authority	Lub.	480	Antwerp
11	H. Finckler and Co.	,,	7,500	Trieste
11	M Record	,,	6,000	,,
11	Bowring Petroleum Co. (San Antonio)	Lamp	837,670	Philadel.
11	,, ,,	,,	480,270	Coatzacoalcos
11	,, ,,	Benzine	194,930	,,
11	W. H. J. Alexander	Lub.	4,310	New York
12	Anglo-American Oil Co. (Iroquois)	Lamp	1,922,800	,,
12	,, ,,	Gas	341,080	,,
12	,, (Navahoe)	Lamp	950,680	,,
12	,, ,,	Benzine	325,340	,,
12	,, ,,	Naph.	1,378,610	,,
12	,,	Lub.	960	,,
12	British and Foreign Wharf	,,	80	Antwerp
12	British Pet. Co. (Aras)	Lamp	1,266,000	Pt. Arthur
12	Worthington and Boler	Lub.	3,800	Philadel.
12	Langley, Smith and Co.	,,	2,400	,,
12	A. Brown and Co.	,,	10,960	,,
12	Snowden, Sons and Co., Ltd.	,,	300	Riga
14	Van Dam and Co.	Tar Oil	2,200	Rotterdam
14	Port of London Authority	Lub.	4,200	Hamburg
14	General Steam Nav. Co.	Lub. Gr.	2,400	Antwerp
14	J. Harrison	Lub.	170	,,
14	Page, Son and East	Lub. Oil and Gr.	120	,,
14	British and Foreign Wharf	Lub.	360	,,
14	Mordaunt Bros.	,,	4,250	Philadel.
14	Lub. and Fuel Oils Co.	,,	8,200	,,
	LIVERPOOL—			
8	Huxley and Co.	,,	370	Hamburg
8	Bramwell, Fern and Co.	,,	610	Philadel.
8	Burnaby and Chantrell	L.Comp.	340	New York
8	Liverpool Storage Co.	Lub	2,470	Philadel
Feb.				
8	W. Gibson and Sons	Lamp	2,050	Boston
9	G. B. Taylor	Lub.	15,200	New York
9	Vacuum Oil Co.	,,	32,440	,,
9	Valvoline Oil Co.	,,	13,740	,,
9	Crew, Levick and Co.	,,	1,840	Philadel.
9	Meade-King, Robinson & Co.	,,	10,720	Baltimore
9	A. Hopps and Sons	M.Colza	2,920	,,
9	Bancroft and Co.	Lub.	230	Antwerp
9	Bowring Petroleum Co.	,,	130	,,
9	Stockdale and Doel	,,	6,840	Boston
10	Liverpool Storage Co.	,,	400	New York
10	Ismay, Imrie and Co.	,,	1,520	,,
10	Pickfords, Ltd.	Lub. Oil and Paste	620	Hamburg
11/1	Anglo-American (Aug.Korff)	Lub.	39,750	Philadel.
14	Meade-King, Robinson & Co.	Lub. Gr.	2,680	Baltimore
14	D. Owen and Son	Lub.	9,050	New York
	BRISTOL—			
8	C. Hill and Sons	,,	41,680	,,
8	J. and R. Bush	,,	7,600	,,
8	Ford and Canning	,,	7,800	,,
8	Pickfords, Ltd.	Lub. Oil and Paste	850	Hamburg
11	First Anglo-Russian Oil Co.	Lub.	300	,,
11	Anglo-Bosphorus Oil Co.	,,	300	,,
12	Pickfords, Ltd.	Lub. Oil and Paste	600	Hamburg
10	British Pet. Co. (Suram)	Lamp	1,265,000	Pt. Arthur
14	Anglo-American Oil Co. (Potomac)	,,	1,261,390	Philadel.
	CARDIFF—			
10	Crew, Levick and Co.	Lub.	2,530	Baltimore
	HARWICH—			
8	Great Eastern Railway	,,	950	Antwerp
	HULL—			
8	Wilsons and N.E. Co.	,,	540	Hamburg
9	W. Gilyott and Co.	,,	43,240	New York
9	T. M. Roberts and Co.	,,	1,310	,,
10	,,	,,	420	Antwerp
10	Wilsons and N.E. Co.	,,	720	,,
10	,,	,,	120	Hamburg
11	T. Wilson Sons and Co.	,,	360	Bergen
11	,,	,,	280	Stettin
	MANCHESTER—			
8	British Pet. Co. (Balakani)	Gas	778,000	Pt. Arthur
8	,, ,,	Fuel	456,000	,,
9	Liverpool Storage Co.	Lub.	140	Hamburg
9	J. T. Fletcher and Co.	,,	770	Antwerp
12	G. B. Taylor	,,	81,800	New York
14	Produce Brokers' Co.	,,	2,000	Galveston
	NEWCASTLE—			
8	Tyne Tees SS. Co.	,,	80	Antwerp
10	,,	Lamp	240	Rotterdam
10	,,	Lub.	400	Hamburg



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IMPORTS.—(*Concluded*).

Date. Feb.	Port and Importers	Descrip-tion.	No. of Galls.	Port Whence.
	ABERDEEN—			
11	R. C. Reid and Co.	Lamp	5,960	Hamburg
	DUNDEE—			
9	A. Gray	,,	400	,,
	GRANGEMOUTH—			
8	J. Currie and Co.	Lub.	3,200	,,
8	W. Graham-Yooll and Co.	Lamp	8,040	,,
	GLASGOW—			
14	Allan Bros. and Co.	Lub.	38,110	Philadel.
14	Anchor Line	,,	49,560	New York
	LEITH—			
3	Henderson and McIntosh	Lub.	45,260	Philadel.
3	J. Currie and Co.	,,	80	Hamburg
3	W. Graham-Yooll and Co.	Lamp	8,680	,,
10	,,	,,	4,360	,,
10	J. Currie and Co.	Lub.	2,000	,,
10	,,	,,	1,680	Hamburg
10	G. Gibson and Co.	,,	120	Antwerp
14	W. Graham-Yooll and Co.	Lamp	4,360	,,
14	G. Gibson and Co.	Lub.	200	,,
	Total for the Week		12,295,750	

FOR THE WEEK ENDED 21ST FEBRUARY, 1910—

Date. Feb.	Port and Importers.	Descrip-tion.	No. of Galls.	Port Whence.
	LONDON—			
15	Mercantile Lighterage Co.	Lub.	36,470	Philadel.
15	W. H. J. Alexander	,,	3,690	,,
15	Anglo-American Oil Co.	,,	73,000	,,
1	E. J. Walkenshaw	,,	6,000	,,
15	Fielder, Hickman and Co.	,,	49,400	New York
15	Lunham and Moore	Lub. Gr.	300	,,
15	A. Brown and Co.	Lub.	1,840	Philadel.
16	,,	,,	120	Hamburg
166	Mercantile Lighterage Co.	,,	27,850	New York
16	Thomas and Bishop	Lub. Gr.	70	Philadel.
16	Anglo-American Oil Co.	Lub.	61,400	New York
16	J. Spurling	Lub. Gr.	280	,,
17	Page, Son and East	Lub. Oil and Gr.	960	Antwerp
17	Wilkins, Campbell and Co.	Lub. Gr.	480	,,
17	Port of London Authority	Lub.	490	Hamburg
17	T. H. Lee	,,	1,170	,,
18	,,	,,	90	,,
18	M. Record	,,	2,600	Philadel.
18	Mordaunt Bros.	,,	1,250	,,
18	Thames Tug & Lighterage Co.	,,	13,160	,,
19	Lubricating & Fuel Oils, Ld. (Erivan)	L. Resid.	134,750	Kustendje
19	,,	Lub.	10,000	Batoum
19	,, (Derbent)	,,	539,300	,,
19	Bowring Petroleum Co.	,,	4,490	Philadel.
19	A. Brown and Co.	Lamp	4,720	,,
19	W. H. J. Alexander	Lub.	1,640	,,
19	Argo Steamship Co.	,,	250	Bremen
21	J. Harrison	Lub. Gr.	80	Antwerp
21	Page, Son and East	Lub. Oil and Gr.	280	,,
21	Produce Brokers' Co.	Lub.	2,000	,,
21	Port of London Authority	,,	3,840	Hamburg
21	T. H. Lee	,,	540	,,
21	Snowdon, Sons and Co.	,,	150	Riga
21	Mordaunt Bros.	,,	4,200	New York
21	Lubricating & Fuel Oils, Ld.	,,	659,250	Batoum
21	,,	,,	21,320	Philadel.
21	United Asbestos Co.	,,	2,120	,,
21	J. W. Baker	,,	4,800	,,
	LIVERPOOL—			
15	Vacuum Oil Co.	,,	7,840	New York
15	,,	L. Resid.	12,000	,,
15	Meade-King, Robinson & Co. (Vedra)	Gas	917,820	Pt. Arthur
15	J. Light and Son	Lub.	3,000	New York
15	Shropshire Union Rail. Co.	,,	5,390	,,
16	D. Currie and Co.	,,	200	Hamburg
16	G. B. Taylor	,,	46,050	New York
16	E. Harrison	,,	6,000	,,
16	Bowring Petroleum Co.	,,	470	Philadel.
16	Worthington and Boler	,,	4,000	,,
17	Bramwell, Fern and Co.	,,	5,740	,,
17	,, ,,	Lamp	950	,,
17	Meade-King, Robinson & Co.	,,	5,000	,,
17	,, ,,	Lub.	49,120	,,
17	E. Harrison and Co.	,,	10,000	,,
17	Crew, Levick and Co.	,,	17,530	,,
17	,,	L. Resid.	4,380	,,
17	,,	M. Colza	5,220	,,
17	G. B. Taylor	Lub.	4,200	,,
17	W. B. Dick and Co.	,,	4,030	,,
19	American Line	,,	1,600	,,
19	Shropshire Union Rail Co.	,,	2,690	,,
19	American Line	,,	16,800	,,
19	Crew, Levick and Co.	,,	820	,,
19	Pickfords, Ltd.	Lub. Oil and Paste	250	Hamburg
19	A. Hopps and Sons	Lub.	10,760	Baltimore
19	Meade-King, Robinson & Co.	,,	5,200	,,
21	C. C. Wakefield	Lub. Gr.	870	Antwerp
21	C. W. Field and Co.	Lub.	210	,,
21	J. and W. Wilson	Lub. Gr.	100	,,
21	Burnaby and Chantrell	,,	730	New York
21	W. Gibson and Sons	Lamp	2,050	Boston
	BRISTOL—			
16	Ford and Canning	Lub.	600	New York
17	C. Hill and Sons	,,	21,760	,,
17	J. and R. Bush	,,	47,200	,,
17	,,	Lub. Gr.	400	,,
17	Anglo-Bosphorus Oil Co.	Lub.	3,000	,,
17	W. G. Clarke	M. Colza	1,290	Antwerp
17	E. Stock and Sons	Lub.	2,000	,,
21	Pickfords, Ltd.	Lub. Gr.	120	,,
	CARDIFF—			
16	Cardiff Colliery Supply Co.	,,	140	,,
	GRIMSBY—			
16	J. Sutcliffe and Sons	Lub.	80	,,
16	,,	,,	980	Antwerp
	HARWICH—			
19	Great Eastern Railway	,,	200	,,
	HULL—			
15	Wilsons and N.E. Co.	,,	4,000	Hamburg
15	,,	,,	480	Ghent
18	,,	,,	2,240	Antwerp
18	T. Wilson, Sons and Co.	,,	2,160	Stockholm
	MANCHESTER—			
16	J. T. Fletcher and Co.	,,	120	Antwerp
16	Lamport and Holt	,,	900	New York
18	,,	,,	2,600	,,
18	George B. Taylor	,,	122,160	,,
18	Schofield and Co.	,,	2,940	,,
18	Manchester Liners	,,	5,000	,,
19	W. Hodgson and Co.	,,	740	,,
19	Liverpool Storage Co.	,,	16,760	,,
	NEWCASTLE—			
15	Tyne-Tees S.S. Co.	,,	840	Antwerp
18	,,	,,	1,240	Hamburg
18	,,	Lamp	4,000	,,
	SOUTHAMPTON—			
19	J. Barringer and Co. (San Antonio)	,,	420,000	New York
	ABERDEEN—			
15	John Cook and Son	Lub.	1,200	Riga
	DUNDEE—			
17	A. Gray	Lamp	410	Hamburg
	GLASGOW—			
15	Clyde Shipping Co.	Lub. Gr.	80	Antwerp
18	,,	Lub.	260	,,
18	Allan Bros. and Co.	,,	1,900	Philadel.
21	Anchor Line	,,	67,760	New York
	GRANGEMOUTH—			
15	J. Currie and Co.	,,	800	Hamburg
15	W. Graham-Yooll and Co.	Lamp	4,800	,,
16	,,	,,	4,000	,,
21	,,	,,	8,000	,,
21	J. Currie and Co.	Lub. Oil and Paste	2,240	,,
	LEITH—			
17	W. G. Yooll and Co.	Lamp	2,180	,,
	BELFAST—			
21	J. C. Pinkerton and Co.	Lub. Oil and Gr.	140	,,
17	,,	Lamp	12,000	N. Orleans
	DUBLIN—			
27	Palgrave, Murphy and Co. (Tioga)	Gas	880,000	Philadel.
			4,475,290	
	Deduct to correct—			
	LONDON—			
4/2	Mercantile Lighterage Co.	Lub.	64,000	New York
	HULL—			
2/2	T. Wilson, Sons and Co.	,,	1,310	,,
	MANCHESTER—			
15/1	Anglo-American (Aug. Korff)	,,	59,300	Philadel.
21/1	,, (Delaware)	Lamp	9,900	New York
8/2	British Pet. Co. (Balakhani)	Gas	4,350	Pt. Arthur
8/2	,, ,,	Fuel	2,190	,,
	Total for Week		4,334,240	
	Total for the Fortnight		16,629,990	

The Petroleum Review.

By PAUL DVORKOVITZ.

Vol. XXII. *(New Series.)* March 12th, 1910. No. 472

THE PETROLEUM REVIEW:

The ANNUAL SUBSCRIPTION for both English and Foreign readers is 26s., including Postage. Single Copies may be had at the offices at 1s.

The Editor would esteem it a favour if readers, when communicating with the various firms advertising in our pages, would mention the "Review."

Contributions upon items of interest are always welcomed from subscribers, but in each case these should be accompanied with the name and address of the sender, not necessarily for publication.

Editorial Notes.

TO OUR READERS.

Following our usual custom, in consequence of the Easter Holidays, the next issue of the Review will go to press on Wednesday, the 23rd inst., and be mailed to subscribers that evening, being on sale at the Review offices the following day. We trust that both correspondents and advertisers will kindly note this alteration in the press day.

The World's Greatest Philanthropist.

The announcement that Mr. John D. Rockefeller, the founder and head of the Standard Oil Co., is to devote the vast bulk of his great wealth to the purposes of charity, has brought forward the highest praise not only from the world's communities at large, but from the members of the petroleum industry in particular. To the credit of the petroleum industry, be it said, that this vast fortune, approximately estimated at £60,000,000, has been amassed largely as the result of taking advantage of the great opportunities which existed in the petroleum industry long before it was the commercial power it is to-day. Mr. Rockefeller has, in the Review some months ago, told his own story of his climb up the ladder of commercial prosperity, so the majority of our readers will be fully aware of the outstanding features in his most eventful life. The same whole-heartedness with which Mr. Rockefeller threw into his commercial career, is now strikingly seen in the manner in which his remarkable fortune is to be devoted to charity. The Rockefeller Foundation, which is to be founded, is to have an initial permanently invested fund of £60,000,000, and over this sum Mr. Rockefeller, jun., guided by a board of experts, is to have control, and in the benefactions the whole of humanity is to be included.

Oil Fuel and the British Navy.

In the British Navy Estimates which were issued on Wednesday night, reference is made to the progress which is attending the use of liquid fuel in the British Navy. The estimates point out that during the past year oil-burning appliances have been completed in the armoured vessels "Defence," "Invincible," "Bellerophon," "Superb," "Temeraire," "St. Vincent," "Vanguard" and "Collingwood." The policy outlined in the previous annual statement in regard to the use of oil fuel for the boilers of all armoured vessels under construction is being continued. The new cruisers "Boadicea" and "Bellona," which were designed to burn oil in conjunction with coal upon obtaining their full powers, have carried out their full-power trials with satisfactory results. Experimental work connected with the burning of oil fuel is still in progress at Haslar, and also in the Surly. The above statement conclusively shews the popularity which has attended the introduction of liquid fuel for Admiralty needs consequent upon the successful experiments through which it has passed.

Foreign Capital in the Roumanian Petroleum Industry.

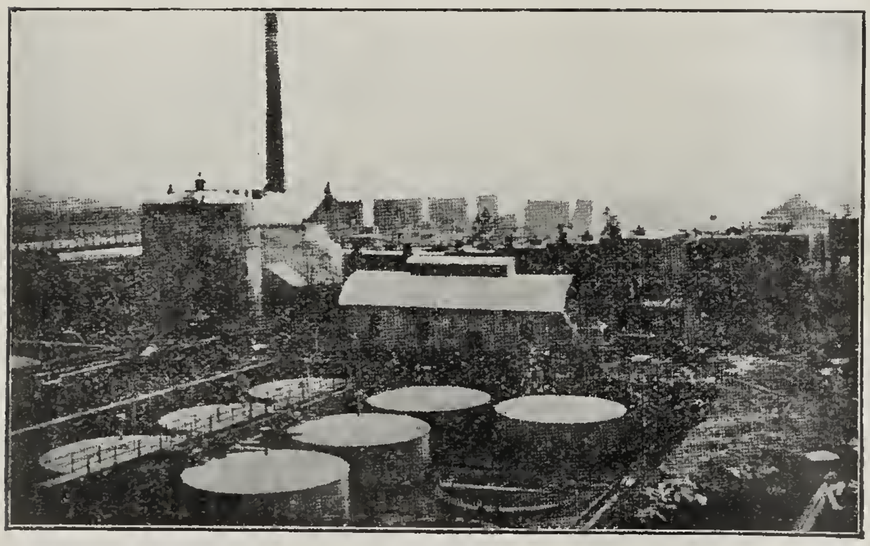
Upon another page of this issue, we publish statistics shewing the various amounts of foreign capital invested in the Roumanian petroleum industry, and the details there given are worthy of very careful attention, especially in view of the fact that to-day we in this country are upon the verge of what promises to be a great oil boom, when more attention will be paid to the value of petroleum enterprises as a safe and remunerative investment. Though of comparatively youthful age when viewed from a commercial basis, the Roumanian petroleum industry to-day finds employment for nearly £13,000,000 capital, of which over £10,000,000 has come from the pockets of the foreign capitalist. Of this amount, over one-half is German capital, and then follows that raised in France and Holland for Roumania's mineral wealth development. England, however, comes very low on the list, her total financial assistance being approximately half a million. We have frequently wondered why the British capitalist does not take a keener and more substantial interest in the Roumanian petroleum industry. He can find almost unlimited capital for the most flimsy propositions coming from the other end of the earth, yet in the prolific petroliferous regions of Roumania, up to the present at all events, he does not seem to have paid much regard. We have all along had every confidence in Roumania, and now have reason to believe the time is coming when English capitalists will recognise the opening which exists for the profitable employment of English finance in peaceful progressive Roumania.

Liquid Fuel Displaces Coal and Coke.

A recent bulletin issued by the United States Geological Survey shews to what an extent liquid fuel is now being consumed in various parts of the States. The writer points out that several influences retarded the growth of the coal-mining industry in New Mexico during the past year. Coal mining in New Mexico is largely dependent on the copper mines and smelters and the lead and zinc mining industries of the south-west, which produce not only these metals but also gold and silver. The rather dormant general industrial conditions in the early part of the year restricted the demand for copper from the mines of the south-west, and reduced the demand for coal and coke produced in New Mexico mines and coke ovens. Another obstacle was the competition of fuel oils, oil from Oklahoma and Texas replacing coal as fuel on fully 3,000 miles of railroads on the Pacific Coast and in Texas and throughout the south-west, and invading the coal and coke market at the copper-smelting plant at Cananea, Mexico. Oil from California fields was used as fuel on the Southern Pacific Railroad from San Francisco and Los Angeles, Cal., eastward by way of El Paso, Tex., to points where the oils of Texas and Oklahoma were used for replenishing the supply of the locomotive tenders. On the Atchison, Topeka and and Santa Fe Railway, oil was used from the Pacific Coast to Seligman, Ariz. This competition of fuel oil with coal will continue for several years, and must be considered in calculating the future production of coal from the mines of the south-west. The writer of the bulletin further remarks: "The use of oil locomotive fuel has also decreased the amount of coal mined for domestic use."

THE AUSTRIAN STATE DEBENZINATION REFINERY AT DROHOBYCZ.

Considerable progress is being made with the debenzination refinery which the Austrian State is erecting at Drohobycz. As will be seen from the photographs here reproduced, the refinery is now approaching completion, and in a few months it is expected it will be in full working order. As may be gathered from the name, the refinery is to treat crude oil for receiving only the benzine from it.



THE SECOND SAKHALIN SYNDICATE, LTD.

We are informed that in addition to Prince Blucher von Wahlscatt, Sir Henry A. White, C.V.O., and Dr. Paul Dvorkovitz, who are directors of the above Syndicate, the board has been joined by the Most Hon. the Marquis of Tweeddale.

PROLIFIC STRIKE OF OIL IN ROUMANIA.

Just at the moment of our going to press, we learn that oil has been struck in very large quantities in well No. 2, belonging to the Astra Co., in the Doicesti district of Roumania. The well became corked almost immediately after the flow was struck, but it is expected that the obstruction will soon be removed, when a large production is certain.

NEW ENGLISH OIL COMPANIES.

MAIKOP PREMIER OIL SYNDICATE, LIMITED.

Registered February 26th, by Messrs. Ashurst, Morris, Crisp and Co., 17, Throgmorton Avenue, E.C. Capital, £75,000, in £1 shares. Objects: To carry on in Russia or elsewhere the business of refiners of and dealers in petroleum and other mineral oils, natural gas, asphalt, naphthaline or other substances, etc., and to adopt an agreement with H. C. Parkes. Minimum cash subscription, 7 shares. The first directors (to number not less than three nor more than five) are to be appointed by the signatories. Qualification, £250. Remuneration, £100 each per annum (chairman £150) and 3 per cent. of the net profits remaining after 10 per cent. dividend has been paid, divisible.

PETROLEUM INVESTMENTS, LIMITED.

Registered February 26th, by Mr. H. C. Emery, 423, Mansion House Chambers, E.C. Capital, £10,250, in 40,000 ordinary shares of 5s. each and 5,000 deferred shares of 1s. each. Objects: To carry on the business of oil producers and refiners, dredgers, miners, promoters, financiers, etc. Minimum cash subscription, 7 shares. The first directors (to number not less than two nor more than five) are:—W. A. Turquand and H. F. P. Hawkins. Qualification, 50 shares. Remuneration, £150 per annum for the chairman and £100 each for the others. Registered office, 423, Mansion House Chambers, E.C.

MAIKOP BORING AND CONCESSIONS, LIMITED.

This company has been registered during the present week in London with a capital of £50,000 for the purpose of conducting boring operations in the newly discovered petroleum district of Maikop, South Russia, as well as to develop a number of petroliferous claims which the company has acquired in that district. The directors are:—Sir Henry A. White, C.V.O., 14, Great Marlborough Street, W.; W. W. Shaw, Esq., J.P., Castleton Grange, Rochdale; John Thom, Esq., Government boring contractor, Patricroft (boring manager); and Dr. Paul Dvorkovitz, petroleum expert, 45, St. Mary Axe, E.C. (managing director).

THE TIMOR OILFIELDS, LIMITED.

This company has been formed with a capital of £150,000, divided into 150,000 shares of £1 each. The company has acquired large concessions comprising altogether about 6,000 acres of petroliferous properties situate at Paulacca in the valley of the Mota-Mutim stream in Laclubar, Island of Timor, and it is the intention to develop these as rapidly as possible. Among the concessions which this company will enjoy is one granted by the Portuguese Government, whereby oil from the Island of Timor will be admitted into Portugal upon payment of only one-half the import duties paid by all other petroleums. The directors of this company are Sir Henry A. White, C.V.O., Ronald A. Silley (Lisbon), W. W. Shaw, Esq., J.P., Castleton Grange, Rochdale; and Dr. P. Dvorkovitz.

THE PETROLEUM TRADE OF FRANCE.

By Mr. A. GUISELIN.

Until 1892 petroleum products were taxed very heavily in France. The difference in the duty of petroleum and refined oil amounted to 12 francs per 100 kilogrammes, and naturally brought forward a largely developed refining industry. The law of the 11th of January, 1892, changed this situation, for it reduced the difference above referred to to 3 francs 50 centimes, and in June, 1893, to 2 francs 25 centimes, the duty on the crude being fixed to 10 francs 25 centimes per 100 kilogrammes, and on refined 12 francs 50 centimes. The French custom house, fixing the percentage of distillate to be obtained from Pennsylvanian petroleum at 90 per cent., it follows that the real duty on the home refined oil amounted to 11 francs 40 centimes, leaving a difference of but 1 franc 10 centimes. Naturally such a slight difference in the duty on imported and home refined product does not encourage the French refiners and the refining industry in France is now considerably on the decline, which is clearly shewn by the following table of imports of crude and refined oil :—

	Imports of Crude Oil. Tons.	Imports of Refined Oil. Tons.
1902	327,493	56,477
1903	371,434	60,625
1904	311,757	99,147
1905	309,221	144,292
1906	206,059	195,341
1907	212,115	208,039
1908	201,216	325,688

It is evident from this table that while the quantity of refined products steadily increases, that of crude oil constantly declines.

The bulk of the crude oil and refined products imported into France is supplied mainly by four countries: United States, Russia, Roumania, and Galicia.

The American oil imported into France until the last few years was of Pennsylvanian origin, but now owing to decrease of Pennsylvanian production, the imports of Pennsylvanian oil are on the decrease and are replaced by imports of crude oil from Texas, Indian Territory, Kentucky, Ohio California. As the refining of these crude oils, which contain a very large percentage of residuals, cannot be profitable to French refiners, they are refined on the spot and not in France.

Until quite recently oil of American origin has been classified under a minimum tariff, but owing to the renunciation of the Franco-American commercial convention, it has since November, 1909, to enter into the country under the general tariff equal to the double of the minimum. As American oil enters into the composition of the largest part of illuminating oil consumed in the country, an immediate consequence of this custom-house policy will be a considerable rise in the price of the "light of the poor," and another consequence to be felt in the future, a complete transformation in the nature and quality of all the refined products, as the French industry will have to abandon this source of supply during all the time the commercial war of the two countries will last.

The following table shews the percentage of American oil in the total consumption of the country :—

	Per cent.
1904	43·0
1905	51·7
1906	51·3
1907	77·05
1908	66·5

Next to United States as importer of petroleum products comes Russia. This country sends into France a product called distillate, which is a mixture of a non-refined distillate and a certain proportion of mazout. This mixture has been introduced by the French tariff regime in order to equalise the Russian oil, containing but scarcely 50 per cent. of refinable products with the American, which contains 90 per cent. of these products. Naturally this arrangement precludes the importation of all the new and very profitable oils which were discovered since. Besides, it has suppressed the importation of residuals for fuel purposes, and thus hindered the creation of a very important industry. Besides the distillate, Russia imports very considerable quantities of so-called essences, crude and refined.

Roumania has suddenly since the last few years taken an important place in the French imports, and for the same reasons as Russia, Roumania imports to France distillates composed of unrefined distillates and a certain proportion of residues.

Galicia for the last few years exports to France more and more considerable quantities of refined oil and heavy spirit. These imports were at first made by land and were favoured with special railway tariffs. Now they are imported as well by sea into the principal French ports.

The general administration of the French Custom House has recently published a very interesting report on the imports of petroleum and petroleum products into France, from which the extract the following information :—

From the United States the imports of crude petroleum, refined oil, and benzine amounted to (in tons): —

	Crude.	Illuminating Oil.	Benzine.
1904	151,600	15,395	25,672
1905	158,000	24,085	38,705
1906	154,250	96,154	23,084
1907	147,600	88,065	21,676
1908	117,800	172,125	43,469
1909	68,870	206,275	40,775

From the above table, it is evident that the imports of crude petroleum from the United States have considerably decreased, while at the same time the imports of illuminating oil (mostly from the new fields of Oklahoma, Illinois, and Indian Territory) shew a corresponding increase. In 1909 the imports of crude oil were 49,000 tons less than in 1908, but there was an increase of 33,000 tons in refined oil imports. This exchange in the imports of crude and refined is a natural consequence of want of protection accorded by the tariff system to the refining industry of the country and the impossibility for the French refiners to import crude oil poor in distillates and rich in residuals, as the tariff system imposes an equal tax on all crude petroleum notwithstanding the difference in contents of its various products. As the commercial *entente* between the two countries came to an end last November, a commercial "war" has followed, and the general tariff (double the minimum tariff) is now applied to petroleum products coming from the United States; on the general tariff crude oil has to pay a tax of 18 francs per 100 kilogrammes (plus 1 franc 25 centimes in addition for refining) illuminating oil and benzine a tax 20 francs per hectolitre while with the minimum tariff the same tax is of 9 francs for crude and 10 francs for illuminating oil and benzine.

The consequences of this "war" are bound to be to the detriment of the French consumers. If American oil continues to be imported as previously, then the consumer will have to pay a much heavier price for his oil, but if this be not so, then he will of necessity have to use an oil free of the admixture of American refined, and consequently he will have to change the system of illuminating with which he is now so familiar. Notable modifications will have to be introduced into the system of lamps, and once this is done and the consumer will get in the habit of using the new burners, American oil will cease to be indispensable, and Russian and Galician oils will then possess a great advantage.

The imports of Russian distillate for the last few months have been considerably on the increase. For the last six years they were as under (in tons):—

	Distillate.	Refined.	Benzine.
1904	143,150	31,317	3,458
1905	68,160	4,244	22,315
1906	7,515	577	10,427
1907	11,413	5,104	22,400
1908	33,770	4,366	7,170
1909	54,320	1,915	25,899

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THE INDIAN PETROLEUM MARKET.

(*Crowded out of page* 165.)

Bombay, Feb. 21st.

The petroleum market is strong. The following are the current prices of the Standard Oil Co. of New York:

		Rs.	a.	p.
Snowflake Brand, 150 deg., American	(per case)	6	4	2
White Rose, 150 deg. ,,	,,	6	4	2
Chester Brand, 76 deg. Abel	,,	4	12	2
Devoe's Brilliant	,,	4	12	2
Monkey Brand, 76 deg. Abel	,,	4	6	2
Elephant Brand, 125 deg. (bulk in tins)	(per 2 tins)	3	15	0
Elephant Brand, 125 deg. (bulk without tins) (per 8 Imperial gallons)		3	5	0

The following are the current prices of the Asiatic Petroleum Co., Ltd.:—

		Rs.	a.	p.
Swan Brand, bulk loose..	(per unit)	2	15	0
Swan Brand, new tins	(per pair)	3	9	0
Ship Brand, bulk loose	(per unit)	3	5	0
Ship Brand, new tins	(per pair)	3	15	0
Rising Sun Brand, bulk loose	,,	3	7	0
Rising Sun Brand, new tins	,,	4	1	0
Anchor Cases	(per case)	4	3	0
Silver Light 150 deg. cases, ...	(per case)	5	4	0

The prices of the Burma Oil Co.'s productions are as under:—

		Rs.	a.	p.
Kerosene, Victoria	(per 2 tins)	3	8	0
Kerosene, Victoria	(per 8 gallons)	2	14	0
Kerosene, Chukker	(per 2 tins)	3	15	0
Kerosene, Chukker	(per 8 gallons)	3	5	0
Burmah Wax	per pound)	0	3	0
Burmah Candles	,,	0	5	0

OPERATIONS OF THE ROUMANIAN REFINERIES.

STATISTICS FOR JANUARY.

The activity of the Roumanian refining industry during January will be shewn by the following table (in tons):—

	In Store on Dec. 31, 1909.		Refined during Jan., 1910.
Benzine	40,072	..	20,922
Illuminating Oil ..	79,613	..	24,222
Lubricating Oil ..	20,763	..	2,713
Residuals	136,441	..	52,615
Paraffin	149	..	—
	277,038		100,472

	Delivered for Local Consumption.	Used as Fuel in the Refineries.	In Store at Jan 31, 1910.
Benzine	1,242	15·5	45,056
Illuminating Oil ..	3,579	—	71,907
Lubricating Oil ..	1,129	8·7	22,286
Residuals	27,849	9,743·0	149,610
Paraffin	102	—	46·7
	33,901	9,767·2	288,905·7

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ROUMANIAN EXPORTS DURING JANUARY.

The exports of petroleum products from Roumania during January, as compared with those for the preceding month, were as follows (in tons):—

	Jan., 1910.	Dec., 1910.
Crude Oil	1,157	5,049
Illuminating	34,150	13,436
Benzine	4,397	13,209
Lubricating	295	110
Residuals	—	10
Paraffin	13	45
	39,912	32,219

The exports of crude oil, illuminating oil and benzine to various countries during the month were as under (in tons):—

	Crude.	Illuminating.	Benzine.
France	207	8,140	3,212
England	539	9,980	—
Belgium	2	6,997	—
Germany	—	5,224	1,015
Turkey	51	3,786	32
Austria..	314	1	—
Bulgaria	1	22	27
Italy	43	—	—
Switzerland	—	—	11

Of lubricating oil 138 tons were exported to Germany, 43 tons to Turkey, 11 tons to Austria, 103 tons to Bulgaria. Of paraffin, 5 tons to Bulgaria and 8 to Italy.

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EXPORT OF PETROLEUM PRODUCTS FROM BAKU DURING DECEMBER.

In the following table the exports of petroleum products from Baku during December are given, and also the total quantities exported (by rail and sea) for the past year, the details for the corresponding periods of 1908 being given for the purposes of comparison. The figures are all in poods:—

	Dec., 1909.	Dec., 1908.	Jan.-Dec., 1909.	Jan.-Dec., 1908.
Illuminating oil	4,834,897	5,416,901	87,492,571	85,462,354
Lubricating oil..	893,202	824,453	15,670,982	14,317,927
Residuals ..	2,264,845	1,739,032	215,691,637	215,907 752
Crude oil ..	1,914,746	1,544,167	51,504,163	44,967,271
Benzine, etc. ..	62,561	63,600	1,129,499	880,693
Total ..	9,970,251	9,588,153	371,488,852	361,565,957

CAPITAL INVESTED IN THE PETROLEUM INDUSTRY OF ROUMANIA.

The *Moniteur du Petrole Roumain*, in a recent issue, estimates that the total of the capital invested in the Roumanian petroleum industry at the present time is 320,000,000 francs (£12,800,000). These figures, it should be mentioned, do not include the value of small properties belonging to individual owners. The following is a table shewing the origin of the invested capital:—

	Francs.
Germany	129,000,000
Roumania	49,000,000
France	36,500,000
Holland	33,000,000
Italy	18,000,000
America	23,000,000
England	15,000,000
Belgium	11,500,000
Austria..	3,000,000
Other Conntries	2,000,000

Of the total of 320,000,000 francs, 217,700,000 francs are invested by various companies, the most important of which are given in the following table:—

	Nominal Capital.	Paid-up Capital.	Net Profit, 1908-1909.
Steaua Romana ..	50,000,000	48,651,720	2,750,809
Concordia	25,000,000	25,000,000	922,553
Regatul Roman ..	24,000,000	24,000,000	1,121,003
Italo-Romana ..	15,000,000	15,000,000	161,878
Romana-American..	12,500,000	12,500,000	710,606
International ..	12,600,000	9,712,500	(loss) 6,801,564
Aurora	13,700,000	10,022,123	(loss) 1,975,554
Colombia	6,700,000	6,454,000	561,365
Credit Petrolifer ..	6,000,000	5,000,000	410,004
Aquila Franco-Romana	6,000,000	6,000,000	337,407
Vega	5,000,000	3,750,000	228,667
Trajan	5,000,000	5,000,000	2,925
Astra	5,000,000	5,000,000	1,239,770
Anglo-Roumanian ..	3,750,000	3,750,000	—
Central-Roumanian	3,750,000	3,750,000	—
Apostalache ..	2,500,000	2,500,000	(loss) 10,820
Motor Fuel ..	3,250,000	2,000,000	—
Nafta	2,000,000	2,000,000	123,839
Raku	2,000,000	2,000,000	(loss) 69,076
Petrolul	2,000,000	2,000,000	—
Antwerp Petrol. Co.	2,000,000	2,000,000	—

AIR COMPRESSORS FOR OIL RAISING PURPOSES.

SUCCESSFUL INSTALLATION IN THE KERN RIVER FIELD.

Referring to the use of compressed air plants for the operation of wells in the Kern River, Cal., field, a Kern River correspondent of the *California Oil World* states that the first unit of a large compressor plant is being installed on the Peerless lease, which, when completed, will greatly increase the production of the 56 wells in commission by the Peerless Company. It consists of an air compressor with a capacity of 1,000 feet at 140 revolutions, a 90 horse-power gas engine, and a gas producer, which generates gas from the oil, using it for fuel. This plant will take care of 10 wells, and six more units with compressors of twice this size, are to be added. The entire plant will cost about $41,000, installed, and in fuel saving alone is guaranteed to pay for itself in 488 days. The exhaust from the gas engines will be used to clean the water and sand from the oil, which now costs the Peerless Co. approximately $50 per day.

The use of air to increase the production of the wells is especially adapted to the Kern river field because of the presence of water in the oil. A current of air is forced down through a small feed pipe at heavy pressure, into the oil at the bottom of the well, lightening the fluid and raising it to the surface. As an example of its efficiency two instances may be cited: Well No. 49 on the Peerless Co.'s property has increased its flow in this way from 15 to 300 barrels and No. 25 has been brought up to 500 barrels from a production of 25 barrels on the beam.

The Monte Cristo lease is said to have almost doubled its production with the aid of air, and plants similar to that of the Peerless Co. are being installed on Associated and other leases.

The Peerless Co. now has a production of 2,500 barrels daily, with approximately 1,250,000 barrels yet to deliver on its 9,000,000 barrels contract with the Standard. Only five wells of all those drilled, 61 in number, have been abandoned.

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THE USE OF LIQUID FUEL UPON CONTINENTAL AND MEXICAN RAILWAYS.

The use of liquid fuel upon railways every year shews greater progress, especially in cases where there are larger inclines to be surmounted or where there are numerous tunnels. As may be expected, the heating of locomotives with crude oil or residuals shews more rapid development in countries possessing extensive and productive oil fields. Roumania, for instance, possesses altogether 603 railway locomotives, of which 122 are heated with residuals alone, 368 with mixed residuals and lighter oils, while the rest are gradually being arranged for using liquid fuel so that in a short time all the engines will be running exclusively upon liquid fuel. The Roumanian Government has entered into a contract with several petroleum companies for delivery during the next three years of no less than 199,490 tons of liquid fuel.

As recently as in 1907 the Mexican railways consumed from 120,000 to 140,000 tons of Cardiff coal; but during the second half of 1908 50 per cent. of all Mexican engines were fitted with liquid fuel burning apparatus. Last year enormous reservoirs were built at Vera Cruz and other places in Mexico for storing the oil fuel for the use of the railways, and in all probability, in a very short time, the use of coal in that country for locomotive purposes will be entirely replaced by liquid fuel, for in 1908 the imports of coal from England and Europe were reduced by 40 per cent. A single railway line, namely, the Mexican Central Railway, has entered into a contract with the Mexican Petroleum Co. for a daily delivery of 10,000 barrels of liquid fuel.

The administration of the Panama Railway and Panama Canal are also using large quantities of oil fuel.

In Russia the use of liquid fuel on the railways was introduced many years ago, but owing to the Japanese war, and more especially the disorders in Baku, there was a dearth in the supply and some of the railways had to revert to the use of coal. Since the production of crude oil, however, has again entered into a quiet stage of working, the use of residuals as fuel upon the railways is increasing.

Even in Italy some railways such as the Modana Railway have seen the necessity for introducing liquid fuel wherever steep inclines and numerous tunnels have to be dealt with.

The Austrian railways now have 773 engines arranged for use of liquid fuel, while in other countries the use of liquid fuel upon locomotives is gradually increasing.

THE DETERMINATION OF THE SPECIFIC GRAVITY OF ASPHALT, PARAFFIN WAX, Etc.

The determination of the specific gravity of such solid substances as asphalt, paraffin, etc., is usually made in the following way: the substance to be tested is put into a mixture of alcohol and water, and more water and alcohol is added until the solid substance commences to float in the mixture, *i.e.*, its specific gravity becomes equal to that of the mixture. This method, although very easy and expeditious, is not very accurate, as in the first case it does not allow for small differences in the specific gravity, and, secondly, the small globules of oil always adhere to the substance, and influence the accuracy of the testing.

Other and more accurate methods exist, but demanding more time and also skill in conducting the experiment and calculating the results. Such are weighing in a specific gravity bottle, or weighing first in the oil, and then in a liquid such as water, alcohol, etc.

Of great usefulness will therefore be a new apparatus invented by Dr. Sommer, of New York, allowing in a very simple way the quick and accurate determination of the specific gravity of substances, which, when solidifying, manifest considerable contraction, such as asphalt, paraffin wax, etc.

The apparatus consists of two parts: the lower one, of a capacity of 10 c.c.: and an upper one, which is screwed on to the lower one. Both parts, when screwed together, are filled with the melted substance and are kept for some time at a temperature above the melting point of the substance in order to eliminate all the globules of oil. The apparatus is then cooled down, first in the oil and then in water, in which it is kept for at least half-an-hour. The upper part is then unscrewed, the surface of the substance in the lower part is made level, and its specific gravity is calculated from the weight of the bottle, or can be had direct by means of a special hydrometer which by a special arrangement can be fixed.

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OIL-GAS ANALYSIS APPARATUS.

BY E. C. UHLIG.

This apparatus was designed for gases in which the methane is in greater proportion than the hydrogen. It is based on the observation of E. Jaeger, that when a mixture of methane and hydrogen is passed through copper oxide at 250° C. the hydrogen is burned to water, the contraction in volume being a direct measure of the hydrogen that was present, while the methane is unchanged until the copper oxide is heated to redness when it is burned to carbon dioxide which may be absorbed in sodium hydroxide. The residue of gas left after combustion and absorption is then read, added to the other constituents and the sum subtracted from 100 gives the methane. This apparatus has been used for gases made by decomposing oil in retorts. These gases are of the following type :—

	Per cent.	Per cent.
Carbon dioxide	0·0	0·0
Illuminants	54·2	45·4
Oxygen	0·4	0·4
Carbon monoxide	0·3	1·2
Hydrogen	9·8	5·0
Methane	32·8	43·6
Nitrogen	2·5	4·4

The apparatus consists of an absorption tube, A, similar to that used on the Elliott apparatus, but having the part *cd* in addition. This part is made of tubing 1 mm. internal diameter to the bottom of the upright part *d*, this upright part has an internal diameter of 6 mm. and an external diameter of 10 mm , the bulb is 15 mm. external diameter. The tube, A, may be graduated. The tube, B, is 100 c.c. capacity, and is graduated in 1/10 c.c. It is contracted below the bulb, *g*, which is 15 mm. external diameter. The part above *g* is 6 mm. internal and 10 mm. external diameter. C is a quartz tube filled with fine granular copper oxide, the ends of this tube are stopped with plugs of asbestos fibre. The connection with A and B is made with rubber tubing wired on and covered with wet lamp wick shewn at *jj*. This wick must be kept wet during the combustion by running water over it. Two discs of asbestos board through which the tube, C, passes are shewn at *hh*. The tube, C, is heated by the burner, D.

To prepare the apparatus, the tubes, A and B, are filled with water by raising the bottles, *a* and *b*, which are attached to the tubes by rubber tubing. The next step is to fill the apparatus from the cock, *c*, to the narrow part under *g* with atmospheric nitrogen. This is done by lowering the bottle, *a*, and opening the cock, *e*, thus admitting air into A, *e*, is then closed and the funnel filled with sodium pyrogallate solution, which is gradually allowed to flow into A. When all the oxygen has been removed from the air in A the cock, *c*, is opened and the nitrogen passed from A to B and back several times, applying some pyrogallol solution when the nitrogen is in A. Finally the bottle, *b*, is raised so that the level of its water is at the narrow part of B under *g*. When the water in B is at this mark, the cock, *c*, is closed, the 3-way cock, *f*, open to drain, A, and *e* also opened. The tube A, is then emptied and washed out with water admitted through the funnel, the bottle, *a*, is emptied, washed out, and filled with fresh water. It is then raised above *e*, and when A is full of water the cock, *e*, is closed. The apparatus is now ready for the gas which is to be analysed.

The funnel is removed and the gas admitted to A. When a little more than 100 c.c. has been admitted to A, the cock, *e*, is closed and the funnel replaced. The excess of gas over 100 c.c. is expelled and the volume adjusted in the usual manner. We now have 100 c.c. of gas in A, and proceed to make the absorptions in the same manner as in the Elliott apparatus, admitting the reagents in turn through the funnel ; the tube A being graduated the various contractions are read on it When all the constituents of the gas have been determined except hydrogen, methane, and nitrogen, the residual gas is passed into B and the cock, *c*, closed. A and *a* are now washed out and refilled with fresh water. The burner, D, is lighted, and a small flame permitted to burn about 3 inches below C. The gas is passed from B to A and back about six or eight times. The burner is removed and water run over C to cool the gas, when cool to room temperature a reading is taken by raising *b* until its water level coincides with the water level in B, the heating and cooling may be repeated to ensure that all the hydrogen is burned. The contraction found gives the hydrogen. The burner, D, is replaced and C raised to a red heat, the funnel is filled with sodium hydroxide solution (10 per cent.) and the gas passed from B to A and back ; when in A the cock, *c*, is closed and some sodium hydroxide admitted. This is continued until no further contraction is observed in the gas volume. The burner is removed and the tube, C, cooled with water as before, when at room temperature a reading is taken of the gas in B, this gives the nitrogen. The sum of the constituents subtracted from 100 gives the methane. Any ethane is burned and reported as methane.

This apparatus, as originally used, had a platinum tube at C, but it was found that the reduced copper alloyed with the platinum and this caused the tube to crack. A quartz tube was tried and found to answer very well ; it may be heated to redness and suddenly cooled with water without danger of cracking, and neither copper nor copper oxide have any effect on it. It may be readily cleaned by immersing in *aqua-regia* in a test tube, allowing to stand over night, washing out with water, and drying in a flame. It then can be cooled and refilled with copper oxide.

When an analysis is finished the tube, C, is heated again to redness and air passed through ; this oxidises the reduced copper to copper oxide ; the last of the oxygen is then removed by pyrogallol and the level of the water in B adjusted to the narrow part as before. A and *a* are emptied, washed out, and refilled with water and the apparatus is ready for the next analysis.

The following comparisons were made of results from this apparatus and from an Elliott apparatus. A portion of the residual gas from the Elliott apparatus was passed into A by means of a capillary tube, and the combustions made as above described.

	Elliott.	Copper oxide apparatus.	Difference.
	per cent.	per cent.	per cent.
Hydrogen ..	32·5	32·7	0·2
Methane ..	17·9	18·8	0·9
Nitrogen ..	4·6	5·3	0·7

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MISCELLANEA.

BAKU PRODUCTION DURING JANUARY

The production of crude oil upon the Baku oil fields during January amounted to 41,399,504 poods, of which 10,019,262 poods were produced at Bebe-Aibat, and 31,380,242 poods on the old areas. During the month 487,000 poods were obtained from spouters.

The production of the leading firms during the month was as under :—

	Poods.
Nobel Bros.	5,099,098
Caspian and Black Sea Society	3,376,685
Mantascheff and Co.	2,449,581
Caspian Society	2,066,270
Baku Petroleum Co.	1,907,926
Zoubaloff	1,671,000
Mirzoeff Bros.	1,610,325
Pitoeff and Co.	1,435,700
Russian Petroleum Co.	1,056,777
Mussa-Nagieff	950,881
Aramazd Co.	916,700
Moscow-Caucasian Co.	827,220
Bibi-Eybat Petroleum Co., Ltd.	825,000
Kavkaz Co.	804,631
Baku Russian Petroleum Co., Ltd.	634,500
Assadulaeff	634,291
A. S. Melikoff and Co.	627,500
Nafta	617,000
T. M. Schibaieff Co.	612,110
Oleum	600,781
European Petroleum Co., Ltd.	500,000

The above table does not include Messrs. Benkendorf's production at Surakhany, whose spouter yielded 3,000,000 poods of oil.

DISCOVERY OF NEW SANDS IN THE ILLINOIS FIELDS.

Writing from Lawrenceville, Illinois, a correspondent informs us that a new oil-producing sand has been discovered in the Illinois fields during the past month. The Bridgeport Oil Co. drilled a well to the 1,800 feet level without even finding traces of the fluid, having at a shallower depth passed the "Kirkwood" producing sand. Work was continued on the well, and when down to approximately 1,900 feet, a new sand was tapped and a very good grade oil was encountered in large quantity. The announcement of the prevalence of another producing sand in the Illinois field has caused much attention to be paid to this discovery by many of the operators.

ATTEMPT TO REDUCE JAPANESE TARIFF UPON AMERICAN OIL.

We learn that Baron Kanda has introduced into the Japanese diet a measure affecting a reduction in the Japanese import duties upon petroleum having its origin in the United States of from 30 to 50 per cent. Owing to the excessive import duty now levied by the Japanese Government upon American crude oil, the import has practically stopped. The San Francisco Chamber of Commerce took the matter up and urged the Chamber at Tokio to make an effort to obtain a reduction in the duties so that the petroleum trade between the two countries might be re-established. Baron Kanda's action is viewed with considerable favour not only in Japanese oil circles, but especially throughout California, which latter country would suffer enormously by the permanency of the present duties upon petroleum.

ROUMANIAN PRODUCTION DURING JANUARY.

The production of crude oil in the Roumanian fields during January amounted to 121,462 tons as against 120,311 tons produced in December last. The production on the various fields was as follows (in tons) :—

	January. 1910.	December. 1909.
Prahova District—		
Bustenari-Calinet-Burloi	29,361	29,754
Campina-Poiana	26,053	32,193
Moreni	41,182	37,863
Baicoi-Tintea	17,202	12,913
Other Fields	854	976
Total for Prahova District	114,652	113,899
,, Dambovitza District	3,011	2,905
,, Buzeu District	2,256	2,102
,, Bacau District	1,543	1,605
Total	121,462	120,311

BULK PETROLEUM SHIPMENTS INTO MANCHESTER.

The March issue of the Port of Manchester official Shipping Guide states that during February approximately 18,000 tons of petroleum products were discharged into the various tanks situate below Mode Wheel Locks. The cargoes were brought to Manchester by the following vessels:—The "Hyrcania" from Batoum, the "Kura" from Kustendje, the "Balakhani" from Philadelphia, and the "Servian" from Port Arthur, Texas.

GROSNY PRODUCTION DURING DECEMBER.

The production of crude oil at the Grosny fields during December amounted to a total of 4,943,370 poods, including 62,355 poods by spouting. The production of the leading firms was as follows (in poods) :—

Akhverdoff and Co.	1,882,500
	(Including 53,000 poods by spouters)
Spies Co.	1,480,145
	(Including 9,355 poods by spouters)
Maximoff's Trustees	381,500
Anglo-Russian Maximoff Co.	246,500
Kasbeck Syndicate	472,180
Russian Standard	193,000
Tcheleken-Daghestan Co.	116,080
Moscow Nafta Co.	11,610
North Caucasian Petroleum Co.	74,900
St. Petersburg Society	25,200
Caspian Black Sea Co.	34,925
McGarvey	24,355
Kasmin and Berman	475

IMPROVEMENTS IN PETROLEUM VAPOUR BURNERS.

An English patent has been granted to Mr. Alexander J. Aitken, Engineer, of Earlestown, Lancashire, for an invention relating to inverted burners designed for use with vapourisable combustible liquids such as petroleum.

The liquid is supplied under pressure obtained in any suitable way and passes down a pipe leading to a coil or chamber arranged over the burner proper; thence a pipe leads upward again to the top of a central mixing nozzle through which the vapourised combustible is passed and is mixed with air therein. A pipe extends downward from the mixing chamber and carries at its end a support for an inverted incandescent mantle of well known kind. A deflecting plate or baffle is arranged below the air inlet to the mixing chamber so as to shield the mixing chamber from the direct access of the burnt gases. The deflector may be a flat or curved plate suitably arranged and supported so that it will allow the hot gases to have access to the vapourising chamber or pipe, whilst however, it will throw outward the gases in the required manner after they have served for heating the vapouriser. The deflector may be an enamelled plate which will also act as a reflector of light if it is kept clean and white.

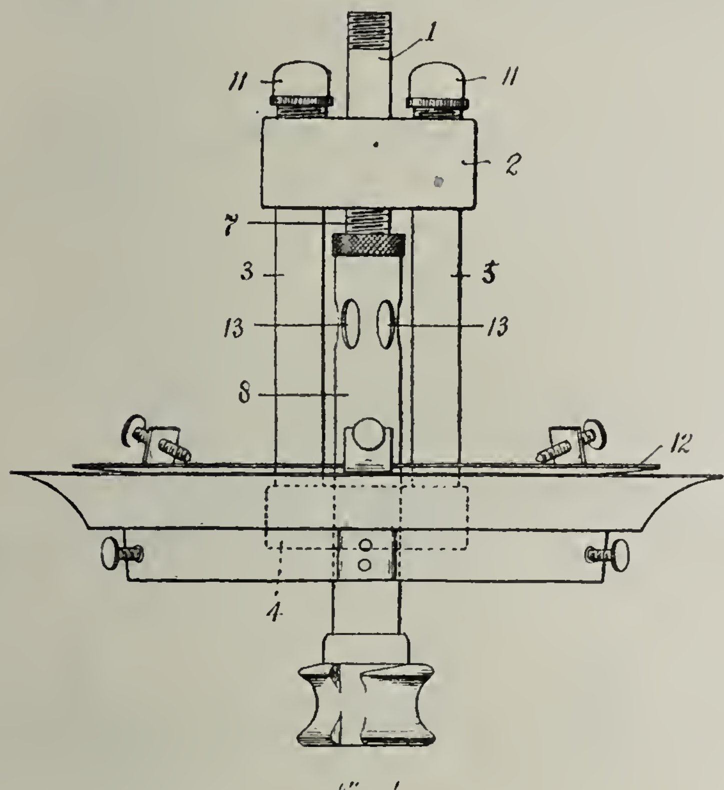

Fig. 1

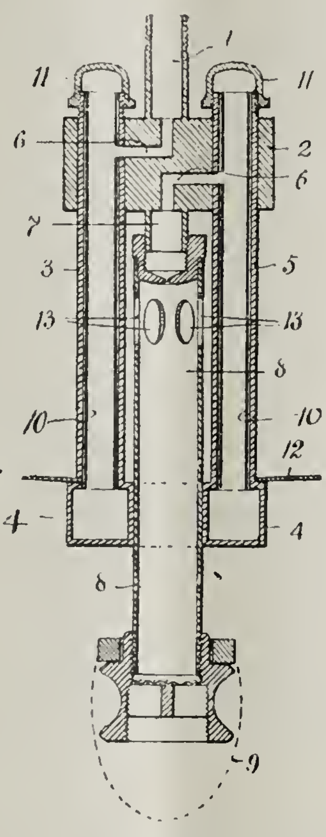

Fig. 2

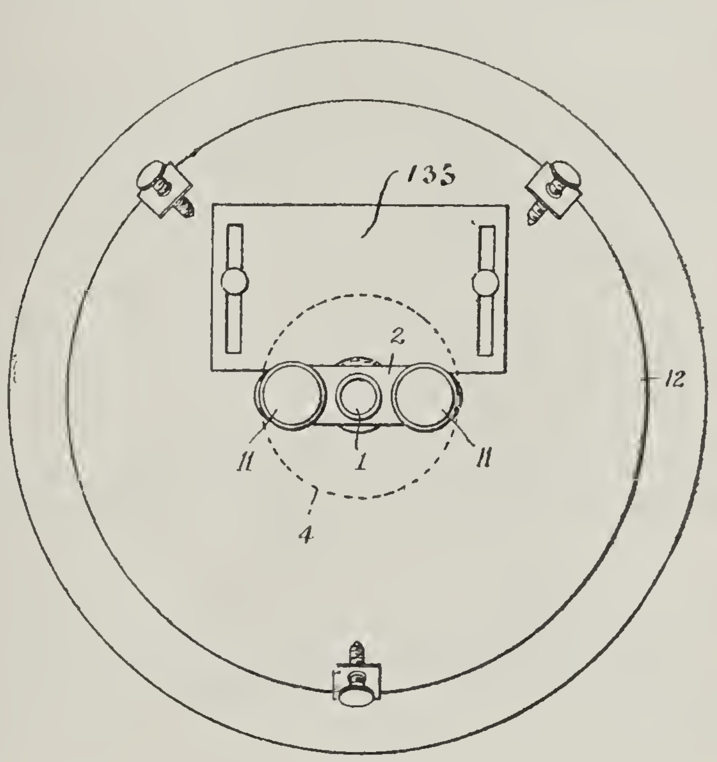

Fig. 3

In all cases the arrangement is such that the device will hang centrally beneath a supply pipe whilst the liquid to be vapourised flows down in a tube at one side of the central line, the vapourised material passes up the corresponding tube at the other side of the said line and the burner and mixing chamber lie centrally beneath the supply pipe.

In the accompanying drawings the supply pipe 1 for the liquid under pressure comes into the centre of a block 2 made in any convenient way, and of such a length that there is room for the insertion of three tubes lying side by side into holes formed in said block. The central supply passage 1 communicates with the tube 3 at one side through a lateral hole, so that the liquid entering the device flows down this tube to the bottom where it discharges into the vapouriser 4. The vapouriser 4 is preferably an annular chamber, as shewn, and the supply tubes may be cut off as shewn at the top of the chamber or may reach down to the bottom of said chamber 4, and have one or more notches in its base to allow the liquid to flow out. At the other side of said vapouriser chamber 4 is a tube 5 which only extends just into the vapouriser chamber from the top and reaches upwards to the block 2. The vapourised combustible passes up this pipe and enters the block 2, and flows through the passage 6 therein to the middle downwardly extending tube 7 on which the mixing chamber 8 of the burner is carried. From the mixing chamber the burner pipe passes down from the centre of the vapouriser 4 to the support for the incandescent mantle 9. In order to facilitate cleaning the two side tubes, down one of which the liquid flows and up the other of which the vapour passes, are preferably both provided with a lining 10, shewn in Fig. 2, of any suitable absorbent material, and to facilitate the insertion or removal of this lining the holes in the block 2 into which the side tubes pass are preferably carried right through the block, and are normally closed by caps or plugs 11 at the top. By the removal of these latter direct access can be obtained to the tubes so that the absorbent lining can be inserted and removed with ease.

A deflector 12 is arranged above the vapouriser chamber 4 and below the air inlets 13 adapted to allow the hot gases to have access to the vapourising chamber, whilst throwing outward the gases after they have heated such chamber, and thus shielding the air inlets 13 from the burnt gases. This deflector may be locked in position by the sliding plate 13 on its upper side.

In some cases it may be one pipe which passes downward from the point of attachment, forms the vapouriser, and passes upward and downward again to the mixing chamber.

RUSSIAN NOTES.

A Maikop New Company.—A new enterprise for exploration and exploitation of petroleum has been formed under the name Black Sea Kuban Co.

Telegraphic Communication in Maikop.—A telegraphic communication is now being established from Maikop to Apscheron and locally between the various Maikop fields and Apscheron.

New Pipe Lines at Maikop.—The Baku Black Sea Society and Engineer Zaturoff have approached the administration of the Kuban district in view of allowing them to lay pipe lines from the Maikop fields to Enem or Afinskaja.

Petroleum at Samara.—The Samara Zemstvo has forwarded a petition to the Government for the exploration by the latter of the Bagulmin and Buguruslau districts, where petroleum oozes on the surface in large quantities.

Production in the Kuban District.—The production of the Baku Black Sea Society up to 1st of January (o.s.), amounted to 1,567,975 poods, and that on the fields of Selitrennikof's to 37,410 poods A reservoir for storing 500,000 poods is now being erected on the property of these firms.

A Baku New Company.—The St. Petersburg Caucasian Petroleum Co. has been formed with a capital of 1,000,000 roubles divided into 4,000 shares of 250 roubles each. The company is taking over the petroliferous properties belonging to various people at Balakhany and Saboontchi.

More Tank Waggons.—In view of the permanent inadequacy of the number of tank waggons for the transport of illuminating oil upon the Trans-Caucasian Railway, it has been decided to increase the number of waggons at the disposal of the local service of Baku by 500 new tank waggons of double the ordinary capacity.

New Oil Fields.—Oil in large quantities is now oozing on the surface near the station Poili, Transcaucasian Railway, at about 60 versts from Tiflis. Some six years ago some engineers were exploring the locality, but serious exploitation has not yet commenced. The petroliferous plots are all private property of the peasants of the neighbouring village.

Messrs. Nobel Bros. Estimates.—At the last general meeting of the firm the budget for the year 1910, was estimated as follows:—Income, 101,399,504 roubles; expenditure, 98,318,644 roubles. The profits, together with the sums transferred from the year 1909, are estimated at about 3,500,000 roubles. The profits for the two preceding years were 8,025,729 roubles in 1908, and 6,622,034 roubles in 1907.

Maikop Petroleum. — Analysis of samples of Maikop petroleum made in the laboratory of the Vladikavkas Railway shew that it yields 16½ per cent. of benzine of specific gravity 0·723, 36½ per cent. of illuminating oil of specific gravity 0·820, and 46 per cent. of mazout.

Baku Refined Oil for Poland.—The firm of Messrs. Nobel Bros. has decided to establish a system of the transport of refined oil from Baku to Poland by water. From Baku the oil will go in the barges on the Volga up to Ribinsk, from there on the canals of the Mariinski system to Petersburg, where the oil will be reloaded into tankers which will carry it to Danzig, from which place it will go into barges on the river Visla up to Warsaw.

Volga Shippers' Conference.—The eighth conference of the Volga shippers, in view of preventing the re-occurrence of oil crises similar to that of 1905-1907, and of securing for the shipping trade a permanent supply of liquid fuel, has forwarded to the Government a petition urging the exploration on a very large scale of petroliferous lands, the abolition of duty on kerosene, and a speedy promulgation of the law *re* the leasing of petroliferous properties.

Deficiency of Illuminating Oil at Batoum. — From the middle of January last until the present time there has been an almost complete absence of any illuminating oil for export abroad and to the inner ports. Tank steamers are waiting in the port for weeks without any chance of their being loaded as oil comes from Baku in exceedingly limited quantities. Instead of the usual 1,500 to 1,750 tons arriving daily through the pipe line, scarcely 200 to 250 tons are pumped now. The main reason for this state of things is that the refiners are abstaining from sending their oil until the new reduced tariff comes into force.

ROUMANIAN NOTES.

The Nafta Company.—The net profit of this company for the past year amounted to 581,727 francs, as against 444,490 francs for the preceding year.

The Roumanian Petroleum Company.—This company, with a capital of 1,250,000 francs, shews for the year 1909, a profit of 74,646 francs.

The Eos Company.—Under this name a new Roumanian petroleum enterprise has been formed with a capital of 200,000 francs in 200 shares.

The Orion Company. — The capital of this company—5,500,000 francs, in 2,750,000 shares—has been fully subscribed at Amsterdam at a premium of 5 per cent.

Progress of Roumanian Exports.—The Roumanian exports for the years 1905, 1906, 1907 and 1908 were as follows:—Tons, 220,226, 325,345, 430,588 and 465,553. For the four years the Roumanian exports have more than doubled.

A Favourable Impression.—The extended use of liquid fuel by the English Admiralty has had the most favourable influence on the shares of all petroleum companies in Roumania. The shares of the Steaua Romana are now quoted at Berlin at 142 per cent.

The Central Roumanian Petroleum Company, Ltd.—The *Moniteur Officiel* publishes a royal decree authorising the above company to open a branch in Roumania with offices at Bustenari. The company has now commenced its working operations in the district of Bordeni.

Geconsolideerde Hollandsche Petroleum Company.—The shares of this company, which represents the interests of the Koninklyke, and of the Shell Co. in Roumania, are quoted now at 310 per cent. The company intends to considerably increase its capital for Roumanian enterprises.

Organisation of Petroleum Trade—The principal Roumanian refineries have come to an arrangement made for three years for united action in the sale of illuminating oil in the country, and are now endeavouring to extend this agreement to the sale of all petroleum products for home consumption.

A New Tanker for the Export Trade.—The Petroles-Transport Co., of Marseilles, which works conjointly with the Compagnie Industrelle des Petroles, of Paris, has built a new tanker, the "Radioleine," for carrying cargoes of oil from Roumania to France. The tanker has accommodation for 5,000 tons of oil.

Duty-Free Lead.—The refinery of the Steaua Romana has obtained from the Government the exemption from duty for the import of 50,000 kilogrammes of sheet lead and 5,000 kilogrammes of lead pipe. The new refinery of the Romana-Americau has obtained a similar exemption for 10,000 kilogrammes of sheet lead and 2,000 kilogrammes of pipe.

The Allgemeine Petroleum Industrie A.G. — This company, controlling the petroleum enterprises of the Disconto-Bleichroeder group, has published its report for the year ending September 30th, 1909, shewing a net profit of 870,161 marks (against 1,888,731 in the preceding year), which will go entirely for amortisation purposes. No dividend is to be declared.

Disconto Gesellschaft and Roumanian Petroleum.—In the report of this company upon its Roumanian enterprises we learn that "the Roumanian companies are now in process of being reformed from the administrative point of view. The production of the Concordia has undergone a decrease, but is now improving. In consequence the Vega refinery will distribute but 5 per cent. of dividend against 7 per cent. in the preceeding year."

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Servian	**6,700**	**Terek**	**5,200**	**Rock Light**	**4,100**
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LATEST QUOTATIONS OF PETROLEUM SHARES.

ENGLISH COMPANIES.

This list is restricted to companies who have paid dividends or who are producers.

Company.	Capital Paid Up.	Value of Shares.	Latest Prices.
Assam Oil	£310,000	£1	15/0-16/0
Bibi-Eybat Petroleum Co. ..	£380,000	£1	4/6-5/6
Californian Oilfields	£400,000	£1	$5\frac{13}{16}$-$5\frac{15}{16}$
Commonwealth Oil Co. ..	£500,000 Pref.	£1	$\frac{11}{16}$-$\frac{13}{16}$
,, ,, ..	£225,000 Def.	£1	$\frac{3}{4}$-$\frac{7}{8}$
Lobitos Oilfields, Ltd. (£1) ..	£360,000	£1	31/6-32/6
Pacific Oilfields, Ltd. (£1) ..	£200,000	£1	26/6-27/6
Russian Pet. & Liquid Fuel ..	£500,000 6½% Pref.	£1	3/0-4/0
,, ,, ...	£600,000 Ord.	£1	3/0-4/0
Schibaieff Petroleum ..	£575,000 6% Pref.	£5	6/0-8/0
,, ,, ...	£575,000 Or l.	£1	1/0-2/0
Shell Transport & Trading ..	£2,300,000	£1	78/6-79/6
,, ,, ,, ..	£1,000,000 Pref.	£10	$11\frac{1}{4}$-$11\frac{1}{2}$
Spies Petroleum Company ..	£465,000	10s.	24/9-25/3

RUSSIAN COMPANIES.

Company.	Nom. Value in Roubles.	Latest Quotations.	
		Lowest Roubles.	Highest Roubles.
Baku Naphtha Co.	100	315	316
,, ,, ,, (issue of 1908) fully pd.	100	341	343
Balakhany Naphtha Co.	250	—	—
Caspian Society	1,000	4,550	4,560
Mazout Co.	250	—	—
Melikoff, A. C.	250	—	—
Mirzoeff Bros.	250	—	—
Naftalan Co.	250	—	—
Naphtha Co. "Kavkas"	250	—	50
Naphtha Trading Co., A. I. Mantacheff & Co.	250	135	136
Neft Co.	250	—	75
Nobel Bros.	5,000	11,100	11,85
,, ,, ...	250	—	598
Rops and Co. V...	250	315	316
Russian Naphtha Co.	250	—	—
Society Mazout	250	—	400
Ter-Akopoff Co.	250	—	—
Tumaieff & Co., J. G.	250	96	—
Volga-Caspian Naphtha and Trading Co	250	—	—
,, ,, ,, (Second Issue)	250	—	—

SCOTCH COMPANIES

Supplied by Messrs. MACLEAN AND HENDERSON, STIRLING.

Company.	Capital Paid Up.	Value of Share.	Latest Prices.
Anglo-Persian Oil Co., Ltd., 6% Part Pref. (5s. paid)	£150,000	£1	6s. 0d.
Do. 5% Deb. Stock	£600,000	£100	£95 0s. 0d.
Broxburn Oil Co., Ltd., Ord. 17/- pd	£235,000	£1	£2 1s. 6d.
Do. 6% Cum. Pref. ..	£100,000	£10	£12 3s. 9d.
Burmah Oil, Ord.	£1,100,000	£1	£5 3s. 6d.
Do. Pref.	£250,000	£1	£1 7s. 6d.
Dalmeny Oil Co., Ord. (7 paid) ..	£37,800	£8 10s	£5 2s. 6d.
Do. 5% Pref. ..	£18,900	£7	£4 10s. 0d.
Oakbank Oil Co., Ltd., Ord.	£170,000	£1	£1 17s. 6d.
Do. Pref. (£1 paid)	£100,000	£1	£1 4s. 3d.
Pumpherston Min. Oil Co., Ld., Ord. (17s. paid)	£110,500	17s.	£9 2s. 6d.
Do. 6% Cum. Pref.	£100,000	£10	£13 0s. 0d.
Tarbrax Oil Co., Ltd. Ord. (£1 pd.)	£65,000	£1	£2 8s. 9d.
Do. 6% Cum. Pref.	£40,000	£1	£1 4s. 6d.
Young's Paraffin Co., Ltd., Ord. ..	£452,808	£4	£3 9s. 0d.
Do. "B" Deb...	£150,000	£100	£161 0s. 0d.

DUTCH COMPANIES.

Company.			Latest Quotations (per cent.)
Dordtsche Petroleum Industrie My.		Aand.	183
,, ,, ,, ..	Pref.	,,	200
Int. Roum. Petroleum Maatschappij		,,	$24\frac{7}{8}$
Royal Dutch Petroleum Co.		,,	461
Mœara Enim Petroleum Maatschappij ..		,,	225
Oklahoma Petroleum Co.	Pref.	,,	129
,, ,, ,, ...	Ord.	,,	$75\frac{7}{8}$
Perlak Petroleum Maatschappij		,,	173
Sumatra Palembang Petroleum Maatschappij		,,	174
Zuid Perlak Petroleum Maatschappij ..	Pref.	,,	184
Union Petroleum Co.		,,	$82\frac{5}{8}$
Bibi-Eybat Petroleum Maatschappij		,,	$22\frac{1}{8}$
Russian Petroleum and Liquid Fuel Co. ..		,,	$17\frac{1}{4}$
,, ,, ,,	Pref.	,,	$17\frac{1}{2}$
,, ,, ,,	(6% Debs.)	,,	$34\frac{1}{2}$
Schibaieff Petroleum Co. (Ord.)		,,	$5\frac{1}{2}$
,, ,, ...	Pref.	,,	$8\frac{1}{2}$
Shell Transport and Trading Co. ..	Ord.	,,	$295\frac{1}{2}$
Tulsa Petroleum Co.		,,	$90\frac{1}{2}$

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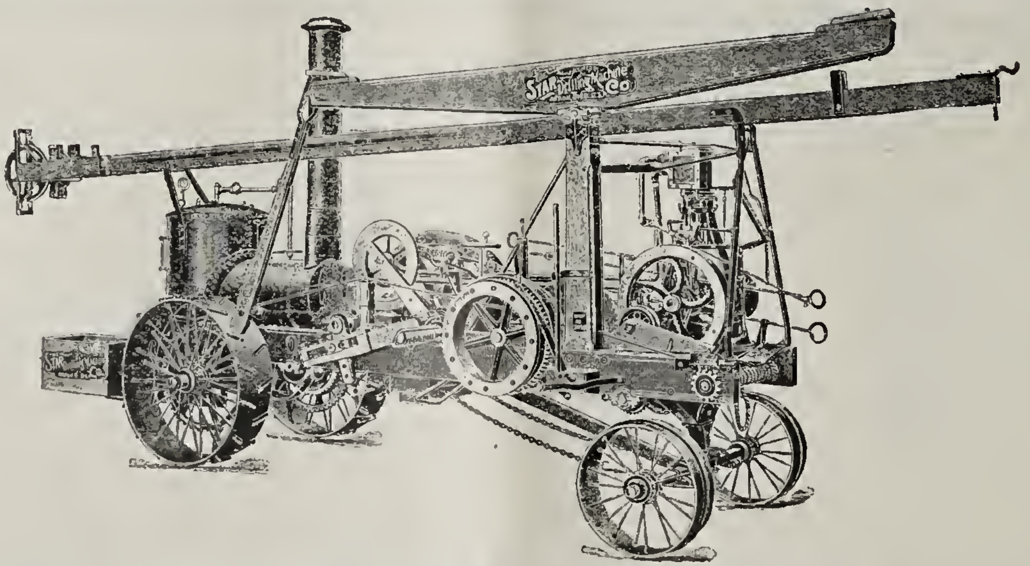

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American Office: 150, Nassau Street, New York.

Saturday, March 12, 1910.

THE WORLD'S PRODUCTION OF PETROLEUM IN 1909.

THE petroleum industry in all parts of the world is without the slightest doubt making real progress, and last year that progress was more marked than at any other period during the industry's commercial career. In almost every known crude oil producing district, the activity which characterised last year's operations was sufficient in itself to suggest that boom days were at hand; the reward has been that the production of crude oil during the past twelve months reached a record which has never before been attained.

If there are some who doubt the real commercial value of petroleum producing interests, and who are wont to look upon the petroleum industry as a small branch of trade made up of a few units who stand frequently on the brink of "fizzling" out of existence altogether, let them ponder for one moment over the magnitude of the immense total of crude oil production, which was not only brought to the surface last year, but which in a hundred and one different directions found profitable employment throughout the whole of the civilized world. During the past twelve months considerably over 40,000,000 tons of crude oil were produced, an amount 3,000,000 tons in excess of the record reached in 1908.

The following table gives at a glance the world's total production of crude petroleum during the past three years, shewing the participation by the various producing countries:—

Producing Country.	1909. Tons.	1908. Tons.	1907. Tons.
America	25,000,000	25,700,000	22,400,000
Russia	7,900,000	7,500,000	7,680,000
Dutch Indies ..	3,000,000	2,500,000	2,000,000
Galicia	2,150,000	1,750,000	1,170,000
Roumania	1,300,000	1,150,000	880,000
India	780,000	600,000	550,000
Other Countries ..	550,000	450,000	450,000
Total	40,680,000	37,650,000	35,130,000

From the above table it will thus be seen that, while the United States still maintains its lead as the greatest producing country in the world—it figures in last year's records of crude oil production in quite a different way to the majority of other oil-producing countries—it is the only country which for the past twelve months has shewn a decrease in its production when the figures are compared with those for the previous twelve months.

There are, of course, many reasons for the decreased yield in the American fields last year, and among these, that of a dearth of supply does not find a place. Various factors have worked together to bring America's record of 1909 below that of its immediate predecessor. As our readers are well aware, America's petroleum industry has witnessed an enormous expansion during recent years—an expansion which, in spite of all the energies of the powerful concern which has been the making of it, has been for the time being, too great to be thoroughly grappled with. The producing fields do not pour out their flood of oil almost upon the sea-shore. On the contrary, in the case of the two largest producing areas—those of California and the Mid-Continent fields—they are situated for the most part at long distances from sea-board, and consequently a wealth of organisation in pipe lines and storage is essential before the crude oil can be profitably marketed. It is an open secret that the American crude oil production has increased lately far ahead of facilities for transport, and thus during 1909, activity was to some extent slackened. Increased facilities, however, are being laid down as quickly as possible, and in the space of about two months, we anticipate that two or three more important trunk oil lines to seaboard will be receiving thousands of tons of crude oil daily.

For the present year, therefore, the prospects are glowing, and if the forecasts of many influential oil operators count for anything, the production of crude oil for this year in America will surpass even the record of 1908.

With reference to Russia, it is gratifying to note that after its many adversities, the petroleum industry is slowly getting back to its old level. The figures given in the table herewith do not include the statistics from the Grosny fields, nor the surprise yields from the Maikop spouters; therefore we may take it that 1909 proved a fairly good year all round for Russian production. As to the present year, everything points to a continued period of prosperity. The demands which been made for the lowering of the pipe line freight rates from Baku to Batoum have met with the approval of the Russian Government, and thus with the impetus which is given to the export movement of Russian oil, coupled with the feeling of safety and rest which now pervades the Caucasus, and combined with the fact that Maikop will this year add several pages to Russian oil history, we may with every confidence look forward to the crude oil yield from Russian territory this year rising above the 10,000,000 ton mark.

As to Galicia, this country has without doubt made remarkable progress in its crude oil yield during 1909, and now that the Government has lent its ear to the voice of the producers, and is now busily engaged in formulating plans for the storing of large quantities of crude oil. Under these circumstances, there seems no reason to anticipate a renewal of the crisis through which the Galician industry has so recently passed; on the other hand, with the combination of the producers and refiners, it seems tolerably certain that the Galician petroleum industry will this year be placed upon a permanently sound basis.

The Dutch Indies—that home of motor spirit—Roumania and the other well-known petroleum producing centres have all a satisfactory record for the past year, and so far as the present goes, in each case we anticipate another substantial production for 1910 in each case.

It must also be borne in mind that new and highly prolific territories will come in for active exploitation consequent upon the present activity in oil, and thus we shall be somewhat surprised if when this year draws to a close, the world's total crude oil production does not reach 50,000,000 tons. In any case, the facts we have given conclusively prove that the petroleum producing industry to-day occupies a more important position than has ever been its fortune in the past.

MAIKOP BORING AND CONCESSIONS, LIMITED.

Our readers will note from another part of this issue the announcement that a company under the title of the Maikop Boring and Concessions, Ltd, has been registered in London during the present week. As we go to press, we learn that this company has already secured several important contracts to drill in the Maikop field upon concessions acquired by English capitalists.

[This is without doubt a record.—Ed., *P.R.*]

The Roumanian Refining Industry during 1909.

The total quantity of crude oil refined in 1909 in the Roumanian refineries amounted to 1,107,825 tons, as against 1,011,616 tons in 1908, out of which 1,085,297 tons, as against 991,987 tons in 1908, of various products were obtained. These were as under :—

	1909. Tons.	1908. Tons.
Benzine	201,253	180,190
Illuminating oil	263,998	248,274
Lubricating oil	43,446	89,753
Residuals	576,600	473,770

In examining the above figures it should first be mentioned that the deliveries of crude oil to the refineries during 1909 did not quite follow the increase in the production of crude oil. While out of the 1,147,727 tons of crude produced in 1908, 1,011,616 tons, or 88·1 per cent., were delivered to the refineries, but in 1909, out of 1,296,403 tons of crude produced 1,107,825 tons, or only 85·4 per cent., were sent for refining. This decrease on the percentage of crude oil delivered to the refineries shews that the refining industry could not follow the progress achieved in regard to the production of crude, it being handicapped by the difficulty of sale on the foreign markets. This state of things has brought about an accumulation of stocks at the refineries and consequently hindered the reception of crude from the fields, thus considerably lowering the price of crude oil.

The following table shews the production and the refining for the last seven years :—

	Total Production. Tons.	Delivered to Refineries. Tons.	Per Cent.
1903 ..	384,009	314,748	81·9
1904 ..	500,561	391,387	78·2
1905 ..	614,870	510,143	82·9
1906 ..	887,091	748,798	84·4
1907 ..	1,129,097	950,614	84·2
1908 ..	1,147,727	1,011,616	88·1
1909 ..	1,296,403	1,107,825	85·4

The quantities of various products extracted from the crude oil delivered to the refineries in the same years were as follows :—

	Products Obtained. Tons.	Per Cent. in Proportion to Crude Used.	Per Cent. of Loss in Refining.
1903 ..	295,087	93·8	6·2
1904 ..	375,595	95·9	4·1
1905 ..	486,613	95·4	4·6
1906 ..	723,413	96·6	3·4
1907 ..	917,969	96·6	3·4
1908 ..	991,987	98·0	2·0
1909 ..	1,085,297	97·8	2·2

Of the total quantities of products obtained, the following are the percentages of each product :—

	Benzine.	Illum. Oil.	Lub. Oil.	Residuals.
1905 ..	15·3	30·1	3·4	46·6
1906 ..	15·3	29·6	7·2	44·5
1907 ..	15·4	27·5	6·4	47·3
1908 ..	17·8	24·7	8·8	46·7
1909 ..	18·1	23·8	3·9	52·0

The total quantities of various products delivered for local consumption can be seen from the following table: –

	1909. Tons.	1908. Tons.
Fuel consumed in the refineries	109,077	113,753
Benzine	14,041	9,001
Illuminating Oil	39,451	38 422
Lubricating	15,698	12,150
Residuals	366,703	347,323
Total	544,970	520,649

The local consumption is developing, and increased during the past year by 24,321 tons, or about 5 per cent. The quantities of various products in store at the refineries and export installations at the end of the year were as under :—

	December 31st, 1909. Tons.	December 31st, 1908. Tons.
Benzine	40,071	44,783
Illuminating Oil	79,613	41,540
Lubricating	20,762	22,301
Residuals	136,442	51,460
Total	276,888	160,084

The following table gives a general view of the total production, refining and use of the products and the situation of the stores (in tons) :—

	1909.	1908.	Increase or Decrease
Crude Oil :—			
Total Production ..	1,296,403	1,147,727	+ 178,676
Used for Refining ..	1,107,825	1,012,616	+ 95,209
Refining :—			
Benzine	201,253	180,390	+ 20,863
Illuminating	263,998	248,274	+ 15,274
Lubricating	43,746	89,753	– 46,307
Residuals	576,600	47,3770	+ 102,830
Local Consumption :—			
Benzine	14,041	9,055	+ 4,986
Illuminating	39,451	38,422	+ 1,029
Lubricating	15,698	11,955	+ 3,743
Residuals	366,703	347,329	+ 19,380
Fuel on the Refineries	109,077	113,753	– 4,676
Exports :—			
Benzine	108,218	122,860	– 14,642
Illuminating.. ..	261,637	263,633	— 1,996
Crude, Gas Oil, Residuals, etc... ..	49,715	78,765	– 29,050
Paraffin	545	187	+ 358
In Store on December 31st :—			
Benzine	40,071	44,783	– 4,712
Illuminating	79,613	41,541	+ 38,072
Lubricating and Residuals	157,204	73,761	+ 83,441

DETAILS OF BAKU PRODUCTION DURING DECEMBER, 1909.

The following are the details of the production of crude oil at the Baku oil fields during December, as published in the latest issue of the *Neftiannoie Dielo* (in poods) : –

	Number of Wells in Exploitation.	Production (in poods). By Baling.	By Spouters.	Casual.	Total.	Average per Well per Day
Balakhany	778	6,146,857	—	3,097	6,149,954	267
Saboontchi	860	16,835,584	—	278,067	17,113,651	615
Ramany	201	7,174,179	—	19,000	7,193,179	1,197
Bebe-Aibat	275	9,764,270	653,500	8,075	10,425,845	1,279
Total for December, 1909	2,114	39,920,890	653,500	308,239	40,882,629	649
,, ,, 1908	1,977	38,546,166	220,427	358,500	39,125,093	667

During December the production from spouters was obtained from the following wells :—

			Poods.
At Bebe-Aibat	By the Caspian and Black Society ..	From Well No. 42	642,500
,, ,, ...	By the Bebe-Aibat Petroleum Co... ..	,, ,, No. 11	11,000

THE PETROLEUM TRADE IN TURKEY.

The French Chamber of Commerce at Constantinople published a very interesting report upon the illuminating oil trade of Turkey, from which we extract the following information:—

The measure acknowledged in the Turkish trade is the case which consists of two tins each, containing about 3½ gallons, and weighing about 33 lbs. each. The case itself, being of no use to the consumer, is now entirely dispensed with, and the tins sold to the consumer at a slightly reduced price. At present less than 20 per cent. of the imported oil is case oil, the rest being imported in tins without cases at all.

The total imports approximately amount to 5,000,000 tins (about 18,000,000 gallons), of which Constantinople and its suburbs consume about 1,800,000 tins. Almost the whole of the population in Turkey use oil as an illuminant, for it is the most economical method of illuminating and is an enracinated habit with the Turk.

The oil lamps are very cheap and of all shapes and prices. In some houses oil night lamps are even used. At Pera, where the gas is of bad quality, dear, and often of insufficient supply, many shops prefer to be lighted with oil.

Oil also finds more extended use for heating purposes. Charcoal being very dear, oil cooking stoves in many houses are to be found, and sometimes one house will have two, three and more of these utensils. They present many advantages for the kitchen service; the fire can be lit or extinguished at any moment, and there is, therefore, no waste in fuel. In a living room an oil furnace supplies a clean and comfortable heat and the furnace can easily be removed to another room when the first one is sufficiently heated.

Constantinople being a town of small industry, oil fuel motors are in great use. Thus, oil is an article of first necessity in all spheres of life, and, naturally, any rise in its price is soon felt by the population.

For a very long time Russian oil only was consumed in Turkey. It is very much appreciated by Turkish consumers, and much preferred to American oil; but owing to the strikes in the Caucasus there was a large deficiency in the imports of Russian oil which had then to be replaced by another. It was then that oil from America, Galicia, Roumania and Venice began to be imported into Turkey. At Venice the depôts in which American oil is blended with Galician are situated, and this blend found a ready sale in Turkey. Since then although the Russian production recuperated still quantities of oil of other origin are now sold in Turkey.

The Americans naturally have made great efforts to secure the market for themselves, and the same can be said with regard to the Roumanians, as they can compete in price, being quite near to the market.

In winter the price generally increases enormously, but this winter the prices for oil have been comparatively low. The highest price this winter was 32 piastres per case, the lowest 29 piastres, or about 1s. 8d. per gallon. Roumanian and Galician is sold at about from 2 to 4 piastres less.

The oil trade in Turkey is centralised in a few hands, as it demands large capital for keeping stocks and allowing credit to the retailers.

IMPORTANT PETROLEUM DEVELOPMENTS AT COMMODORO RIVADAVIA.

Some newsy details of petroleum developments at Commodoro Rivadavia are given in a report issued by Mr. A. C. Ross, C.B., H.M. Consul at Buenos Aires, who states that there are five wells, from 500 to 520 metres in depth, which have been sunk at Commodoro Rivadavia by the Government. The water flush system of boring has been employed; considerable quantities of water as well as oil and gas are given by all the wells, and it has not been found possible to separate the oil from the water. When the water has been shut off from the oil, an excellent burning oil should be obtained.

A company, using the Canadian—Galician system of boring, has sunk wells in San Rafael, a place in Mendoza province, some 700 miles from Buenos Aires and from Bahia Blanca. One of these is 710 metres deep; at 200 metres a large quantity of heavy oil and a good deal of gas were found; at 450 metres a very large volume of gas and a considerable quantity of light oil were encountered, and at 700 metres the bore entered a clay bed. About a mile distant from this well, a heavy oil was struck, at a depth of 210 metres, which rose to the surface and overflowed the borehole at the rate of over 10,000 gallons in 24 hours; on sinking the borehole another four metres, the output of oil was increased to over 15,000 gallons in 24 hours.

In the province of Jujuy, two boreholes have been sunk in the department of Santa Barbara; the mining camp is about twelve miles from Yuto station on the Central Northern Railway. Here at a depth of 100 metres, quicksands 450 metres deep, carrying a large volume of water, were encountered; at 550 metres from the surface a bed of plastic clay, containing oil shows, was encountered, through which boring is being carried out. The Santa Barbara district has perhaps 40 or 50 natural outcrops of petroleum, and such are found in very large numbers in the neighbourhood of Tartagal in the north, and again still further north in Bolivia. A large quantity of surface oil can be obtained in the Santa Barbara district by digging hand pits 5 or 6 metres in depth; the oil is all of fine quality and makes an excellent lubricant, even for electric light machinery. The Tartagal oils have the same characteristics.

Expert observations of the oils of Argentina suggests, adds H.M. Consul, at any rate so far as surface oils are concerned, that the farther north they are found the lighter they are.

◆

THE TIN PLATE MARKET.

Messrs. Norton, Owen & Co., of 4, Bishopsgate Street Within, London, E.C., report under date March 10th, 1910, as follows:—

Business has been quiet throughout the past fortnight, but makers' prices are unchanged and firm as under. The works are full of orders, and in face of the crisis in the Welsh coal field seem indisposed to book large lines for forward delivery.

IC	18¾ × 14	124 sheets	110 lbs.	13/9 to 13/10½ per box.
IC	19¼ × 14	120 ,,	110 ,,	13/9 to 13/10½ ,,
IC	20 × 10	225 ,,	156 ,,	19/3 to 19/4½ ,,

F.o.b. Wales. Tin lining and iron hooping extra.

THE COMMONWEALTH OIL CORPORATION, LIMITED.

REPORT OF THE DIRECTORS.

The fourth annual report of the directors of the Commonwealth Oil Corporation, Ltd., which is to be presented at the adjourned fourth annual general meeting, to be held next Monday, states that the directors desire to record their thanks to Sir Ernest Spencer and Mr. Mackay for their visit to Australia. Their thorough and independent inspection of the company's properties, and the experience they have gained, cannot fail to be useful in the future direction of the company's affairs. At the forthcoming meeting they will make a full statement giving the reasons which have caused them to form the very favourable opinions, already communicated to shareholders, as to the value of the properties and the future prospects of the company.

As suggested by the chairman at the last meeting, the period of the financial year has been extended to September 30th instead of June 30th, so that the accounts now submitted cover a period of fifteen months.

The accounts have been prepared on the same lines as the previous year, except that the New South Wales business, having now been absorbed in the general property of the company, has been treated in the same way as the remainder of the property, namely, all receipts have been credited to development or general charges. Railway earnings have also been credited to the general expenditure upon the line. No revenue accounts will be prepared until the completion of the Wolgan refinery and other works.

Development in the shale mines in the Wolgan Valley was retarded for seven months by the strike which began in February last year. Work has been chiefly carried on in the mine on the south side of the valley, where the shale has continued of high quality. Work was also resumed in the coal mines in September, the coke-making plant restarted, and the construction of the further ovens authorised proceeded with.

Practically a year has been lost in the construction of the works owing to the before-mentioned strike, to the delay in raising the necessary further capital, and to the fact that the directors thought it inadvisable to recommence construction until after the visiting directors had been to the property, and had satisfied themselves as to the wisdom of so doing. The continuance was authorised by them in November, but on account of the coal strike Australian manufacturers had to suspend operations, which necessarily affected the delivery of that portion of the plant ordered from them.

The first bench of retorts will be completed during this spring, and it is expected that before the end of the year the Wolgan refineries will be running for the manufacture of kerosene and motor spirit, and a few months later for the production of paraffin wax, lubricating oil and other products.

During the fifteen months under review the sales of export shale have been satisfactorily maintained, some 20,000 tons having been sold. Contracts have been renewed with existing customers, whilst several new outlets in Europe and the East have been opened up, which it is anticipated will lead to considerably increased business in those parts. Notice has been received from the New South Wales Government that the Corporation's railway line must be opened for passenger traffic in the course of this year, and preparations to this end are being made as fast as possible.

In accordance with the information given to the shareholders in the circular issued to them on the 22nd November last, the following meetings will be held prior to the adjourned annual general meeting:—(1) A meeting of the holders of preferred ordinary shares; (2) a meeting of the holders of deferred ordinary shares; and (3) an extraordinary general meeting of the shareholders of the company.

The object of these meetings is to divide the 400,000 new shares created by the resolution of 1st December last, in connection with the recent issue of £265,540 convertible debenture stock, into 250,000 preferred and 150,000 deferred ordinary shares, and to consolidate them with the preferred and deferred ordinary shares of the original capital.

It must be clearly understood that the shareholders are not being asked to do anything new. All that is to be done by these meetings was intended to be done by the meetings held last July, which were ineffective by reason of the directors having (of course under advice) then proceeded under a wrong section of the 1908 Act.

The provisions of Section 45 require that the resolutions at the separate meetings of the preferred and deferred ordinary shareholders should be passed by a majority in number of shareholders of each class holding three-fourths of the share capital of each class. These stringent provisions render it necessary that shareholders who are unable to be personally present should be represented by proxy, and the directors therefore earnestly request, in order to ensure that the meetings shall be effective, that the forms of proxy accompanying this report should be signed and sent to the secretary if possible by return of post. Shareholders who are able to attend personally will not be prevented from voting by the fact that they have given proxies.

PRODUCTION OF ENGLISH COMPANIES IN RUSSIA.

Baku Russian Petroleum Co., Ltd.—The production for the week ended Febuary 12th was 150,985 poods, or 2,434 tons; and for the week ended February 19th was 2,160 tons. These figures are exclusive of oil produced from plots leased off.

Russian Petroleum and Liquid Fuel Co., Ltd.—The production for the week ended February 26th was 139,000 poods, or 2,241 tons; and for the week ended March 5th was 148,000 poods, or 2,385 tons.

Spies Petroleum Co., Ltd.—The production for the week ended February 27th was 337,900 poods, or about 5,450 tons. The total production for the year to February 27th was 2,093,000 poods, or about 33,758 tons. The total production for the corresponding period last year was 1,604,140 poods, or about 25,873 tons. The production for the week ended March 6th was 338,670 poods, or about 5,462 tons. The total production for the year to March 6th was 2,431,670 poods, or about 39,220 tons. The total production for the corresponding period last year was 1,914,135 poods, or about 30,873 tons.

The European Petroleum Co., Ltd.—The production for the week ended February 27th was 111,358 poods, or 1,795 tons; and for the week ended March 6th was 109,525 poods, or 1,766 tons.

AMERICAN NOTES.

A Mid-Continent Field Gusher.—The American Oil Co. has drilled a well on the Osage tract which is now flowing at the rate of over 1,200 barrels daily. This well is upon the territory which was formerly known as the gusher pool.

The Texas Company's Activity.—It is stated upon good authority that the Texas Co is about to build a pipe line from the Caddo field to Beaumont, and the company's tank farm at Garrison, Niches, and Port Arthur, for the purpose of conveying gas to Port Arthur and intermediate points.

Death of an Old Oil Pioneer.—The death is announced of Capt. C. W. Owston, a gentleman well known in many of the American oil circles. Mr. Owston was one of the organisers of the Imperial Refining Co., but during later years he became head of the fuel department of the Standard Oil Co., residing near New York.

The Lucile Oil Company.—In the quarterly report of this company, which is operating in the Californian fields, the details shew that for the last three months of 1909 the company sold 53,500 barrels of oil. In regard to the operating account, the maintenance charges for the three months were just over $3,000, while for the same period the net income was $28,000.

Canadian Gas Amalgamation.—An important merger of interests is said to be pending, which will bring about the consolidation of all the gas companies in the Haldimand field, the absorption of the Ontario Pipe Line Co., and the complete control of the entire gas output, natural and otherwise, in the districts at present supplied. The capital involved will be about $5,000,000.

Reported Rich Oil Strike.—It is reported that workers in a water tunnel now being constructed in the Santa Ynez mountains for the City of Santa Barbara have made a rich strike of oil-bearing sands, but kept the fact secret until they had filed mineral claims upon a large slice of the mountain. The sand was struck at 1,400 feet from the surface of the mountain.

The Uncle Sam Oil Company.—The report recently published that the Uncle Sam Oil Co. was to construct a pipe line to the Gulf of Mexico has now received confirmation. The company is to build the pipe line and also erect a refinery at Houston, Texas, or the Gulf Terminus, as well as one at Paris, Texas. The refinery now in operation at Tulsa will, according to report, be enlarged.

The Boulder Field.—This field in Colorado last year produced about 400,000 barrels of oil. The total number of wells drilled in the field since production on a commercial scale commenced number seven, their cost having been about $350,000. Thus the production for last year, estimated at one and a-half dollars per barrel, will return practically 100 per cent. upon the total cost of drilling in the field.

California's New Pool.—The latest and most promising of the new oil districts in California is that in the Buena Vista Hills. A well has been drilled there, and is now steadily producing at the rate of 500 barrels daily. The Standard Oil Co. has laid a pipe line to the property, and has entered into a contract to take the maximum of 5,000,000 barrels from the property. A mild boom period has been created.

An Important Deal.—An important deal has just been closed at Pittsburg. This has been between Messrs. Jennings Bros. and the Kanawha Oil Co. on the one side and the Prairie Oil and Gas Co. upon the other, for the sale of the former companies' oil producing properties in Oklahoma. The property sold consists of 14,000 acres upon which there are 414 producing wells, with a net daily production of nearly 6,000 barrels. The territory acquired includes much undrilled yet very promising oil land.

ROUMANIAN OIL LANDS.

ADVERTISER who has secured several very Valuable Producing Properties in the Bustenari Field, is desirous of getting in touch with English or Continental Financial Groups, with regard to marketing the same. The properties can be purchased upon most advantageous terms. Write "Kuban," c/o "Petroleum Review," 45, St. Mary Axe, E.C.

AMERICAN EXPORTS FOR JANUARY.

OFFICIAL STATISTICS.

According to the official publication of the Washington Bureau of Statistics, the exports of petroleum from America from the various ports during January were as under:—

	1910. Quantities. Gallons.	1909. Quantities. Gallons.
Crude—		
Baltimore	—	—
Boston and Charlestown	—	—
New York	866,177	1,983,952
Philadelphia	524,320	1,757,573
Galveston and Sabine	3,790,667	5,940,383
San Francisco	4,662,000	3,361,100
Totals	9,843,164	13,043,008
Total value for the month, 1909		$449,481
,, ,, ,, 1910		$280,426
Naphthas—		
Baltimore	110	—
Boston and Charlestown	500	—
New York	4,421,383	1,602,421
Philadelphia	19,000	4,396,363
Galveston and Sabine	25,000	—
San Francisco	13,220	3,025
Totals	4,479,213	6,001,809
Total value for the month, 1909		$425,904
,, ,, ,, 1910		$368,320
Illuminating—		
Baltimore	—	—
Boston and Charlestown	8,497	3,619
New York	44,625,950	43,356,452
Philadelphia	14,004,526	22,901,777
Galveston and Sabine	3,742,768	8,422,693
San Francisco	23,171	8,253,147
Totals	62,404,912	82,937,688
Total value for the month, 1909		$5,388,809
,, ,, ,, 1910		$4,098,343
Lubricating—		
Baltimore	524,700	486,440
Boston and Charlestown	27,898	31,196
New York	7,104,875	6,797,172
Philadelphia	3,449,024	2,759,633
Galveston and Sabine	64,925	3,442
San Francisco	49,461	18,769
Totals	11,220,883	10,096,652
Total value for the month, 1909		$1,342,106
,, ,, ,, 1910		$1,478,700
Residuum—		
Baltimore	—	—
Boston and Charlestown	—	—
New York	547,467	17,750
Philadelphia	3,075,458	3,489,272
Galveston and Sabine	4,408,810	4,950,176
San Francisco	1,015	—
Totals	8,032,750	8,457,198
Total value for the month, 1909		$300,417
,, ,, ,, 1910		$273,448
Total Mineral Oils—		
Baltimore	524,810	486,440
Boston and Charlestown	36,895	34,815
New York	57,565,852	53,757,747
Philadelphia	21,072,328	35,304,618
Galveston and Sabine	12,032,170	19,316,694
San Francisco	4,748,867	11,636,041
Totals	95,980,922	120,536,355
Total value for the month, 1909		$7,906,717
,, ,, ,, 1910		$6,499,237

BORE HOLES FOR OIL
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CONTRACTOR TO H.M. GOVERNMENT.

DEVELOPMENTS IN THE MEXICAN OIL FIELDS.

A BRIEF REVIEW OF THE PAST YEAR'S OPERATIONS.

To our excellent well-informed contemporary—the *Oil, Paint and Drug Reporter*—we are indebted for an exceedingly interesting article dealing with the developments in the Mexican fields during 1909. In spite of the fact that English interests figure very largely in these developments, it is a fact that at headquarters it is impossible to obtain even the most meagre information: consequently we have to fall back upon the present article, written by a gentleman on the spot. The author points out that the lack of complete and reliable statistics on the oil production of Mexico for the year 1909 makes it impossible to give an exhaustive review of the progress of the development of the industry in that country. The reports made to the Government Department of Fomento for the fiscal year 1908-1909 by the different oil producing concerns shew that the oil yield of the republic for that period had an aggregate value of approximately $2,400,000. This is based on a value of $1 per barrel Mexican money for the oil. The reports made to the Government for the first three months of the present fiscal year, which would bring the record up to the close of the last calendar year, are incomplete, but indicate that production of oil was small during the latter period.

A careful investigation of the oil situation in this country leads to the conclusion that the industry is as yet in the experimental stage; that it has not reached that well settled stage when it can be regarded as well established. While there is a great amount of exploitation work being carried on in different parts of the republic, there has been but little successful development of oil-bearing stratas except in a few localities. That the results of the past year were not what was expected by many of the men who are interested in the industry is true, but there has been no abandonment of the exploitation work; on the contrary, the drilling operations are constantly increasing. A number of new concerns entered the industry during the year. Nearly all of the exploitation and development work is being done by American capital. In most instances the companies are composed of practical and experienced oil operators. These men express themselves as confident that Mexico is destined to become a great producer of oil. They say that the conditions are such here that it takes much longer to develop a field than in the oil localities of the United States, but there is no question as to the outcome of the exploitation work that is now being carried on in this country.

It is only the two or three older oil-producing concerns in Mexico that are conducting their operations on a paying business scale. Those that entered the fields later are still fighting obstacles and discouragements which they will, it is believed, in due time overcome. The lack of railroad and other transportation facilities serves to retard the development of the oil resources of some of the more remote localities. It is known that many good wells are now capped awaiting a means of getting the oil to market.

The oil storage in Mexico is small. It is estimated that on January 1st the amount of oil in tanks did not exceed 2,000,000 barrels. In the opinion of some oil men the storage was far less than that amount. The larger and well established concerns are more or less competitors, and they guard their operations so closely that the real facts in regard to their respective oil reserves are hard to obtain.

The oil output of the country is now confined chiefly to the Mexican Petroleum Co.; the Compania de Petroleo "El Aguila," including the interests of Messrs. S. Pearson and Son; the Huasteca Oil Co., which is owned by E. H. Doheny and associates, and the Oil Fields of Mexico, Ltd.

The oil refining business of Mexico is at present confined chiefly to the Pearson interests, which operates a large plant at Minatitlan, on the Isthmus of Tehuantepec, and the Waters-Pierce Oil Co., whose plant is located at Tampico. The latter company also has small refineries at Vera Cruz and Mexico City, but these two plants have been out of commission for several years. The Mexican Petroleum Co. has a refinery at Ebano, about 50 miles from Tampico. It is a small plant and is not considered much of a factor in the refining business of the republic.

The Doheny interests, which control the Mexican Petroleum Co. and the Huasteca Oil Co., are the largest producers of oil in Mexico at this time. The former company is the pioneer in oil exploitation work in this country. Its tract of oil land in the Ebano district embraces 448,000 acres in a solid body. It has a large number of producing wells, each with a daily capacity of 100 to 500 barrels. It has been delivering 600 to 800 barrels of crude oil daily to the National Railways of Mexico for some time. In addition to this supply it is furnishing the Waters-Pierce Oil Co. with much of the oil that is used in the latter's refinery at Tampico. The company is said to have several hundred thousand barrels of oil in storage in the Ebano field. The Huasteca Oil Co. has been operating with five boring rigs for several months in the vicinity of Casiano, about 115 miles south of Tampico and probably 75 miles from the Ebano field. It has developed a big supply of oil in the Casiano district, having at this time five wells that are said to shew an aggregate flow of about 4,000 barrels daily. According to a recent report from that field another well that ran wild for several days was brought in by the company in the Casiano district. This latest well is estimated to have a daily capacity of several thousand barrels. Verification of this report of a big strike of oil is lacking. The Huasteca Co. is making extensive preparations for taking care of the oil supply which it is rapidly developing in the Casiano field. It has one 55,000-barrel tank already erected and partly filled with oil. It is laying an 8-inch pipe line from the new field at Tampico. It has completed two more storage tanks, each of 55,000-barrel capacity, near the Tampico terminus of the pipe line and is erecting seven more of these tanks at the different pumping stations along the route of the pipe line. The company is now handling oil from the Casiano field from the end of the first 10-mile section of the pipe line, the product being delivered into its own steel barges which are able to reach that point by the opening of the new intercoastal canal that runs to Tampico. The Huasteca Oil Co., or rather the Doheny interests, are also building a 3-foot gauge railroad to run between Tampico and the Casiano field, with branch lines to other properties that the same interests are preparing to exploit. This road will have more than 150 miles of track. The concession which the Doheny interests obtained from the Federal Government some time ago for the building of an oil pipe line between the Casiano field and Mexico City will be complied with within the next twelve months, according to the present plans. The Mexican Petroleum Co. has brought in several producing wells upon the Chijol ranch, situated in the vicinity of the famous Dos Bocas geyser, during the last few months. It was found by this company, as well as by other concerns operating in that section, that wells that were bored within a radius of two or three miles of the Dos Bocas phenomena were quickly made worthless by salt water, but when off a greater distance good flows of oil were obtained.

The Oil Fields of Mexico, Ltd., has heen carrying on steady development work in the Furbero district, State of Vera Cruz, for the last two years. It has made no public statement of the number of producing wells, but it is understood that the prospective output is regarded as sufficient to supply a new refinery which it is reported the Pearson interests will erect at Tuxpam. The output of the Furbero field has been contracted for by the Pearsons through the Compania de Petroleo "El Aguila." The railroad and oil pipe line which the Pearsons are constructing to connect the Furbero field with the Gulf port of Tuxpam will soon be ready for operation. Pending the erection of the refinery at Tuxpam this oil will be shipped by water to Minatitlan for the refinery there. The Compania de Petroleo "El Aguila" recently obtained a concession from the Federal Government giving it the exclusive right to exploit a portion of Lake Tamiahua for oil. The producing oil territory between Tampico and Tuxpam borders on this lake, the water of which is very shallow. One provision of this concession recites that it becomes void should the company admit any foreign corporation or individual to a partnership in the enjoyment of the exclusive contract.

Messrs. S. Pearson and Son conducted steady development work upon their oil lands upon the Isthmus of Tehuantepec during the year, providing a considerable supply of oil from that source for their refinery at Minatitlan.

The Mexican Fuel Co., which is a subsidiary concern of the Waters-Pierce Oil Co., met with success recently in developing oil upon its holdings adjacent to the Topilo River, in the Tampico territory. It brought in a well of about 300-barrel capacity at a depth of 2,500 feet. The next well will be sunk to greater depth in the hope of obtaining a larger yield of oil. It has several boring outfits upon the ground, and they will all be placed in service as rapidly as possible.

The Mexico Fuel Oil Co., which is headed by Mr. Charles G. Dawes, president of the Central Trust Co. of Chicago, is meeting with success in its oil boring operations in two separate localities. It has extensive oil land holdings in the Tampico region, and is carrying on a systematic exploitation of the different tracts. It now has two producing wells upon land that it leased from the Tamesi Asphalt and Petroleum Co., bordering on the Tamesi River above Tampico. It is reported that the output of this company's wells will go to the Waters-Pierce Oil Co. The Mexico Fuel Oil Co. is also boring another well upon its land near Caracoal. Its several wells are said to shew an aggregate daily yield of about 2,000 barrels.

The Standard Petroleum Co. began the exploitation of a large tract of land above Tampico a few months ago for oil. It is boring several wells, but with what success the public is not informed.

The East Coast Oil Co., which is said to be employed in the development of an oil supply in the interest of the Southern Pacific Railroad of Mexico, bored four wells last year upon the large tract of land bordering the Tuxpam River in the vicinity of the town of Tuxpam. The amount of oil obtained in the wells is problematical, as they have been capped. This company is also operating near the Tamesi River, where it struck a good flow of oil in its first well at a depth of about 1,600 feet.

The Texas-Mexico Asphalt and Petroleum Co. is boring for oil upon the San Jose de la Rusias ranch, embracing 1,000,000 acres, situated about 125 miles north of Tampico. This company has obtained an oil lease upon the big ranch.

The American International Fuel and Petroleum Co., with headquarters at Los Esteros, State of Tamaulipas, has been boring for oil upon its tract of 130,000 acres of land in that section for the last two years. It is reported to have developed a good yield of oil in at least three wells, but nothing has been done towards marketing the product. In addition to the land that its owns it has leases covering 50,000 acres in that same locality.

CLASSIFIED IMPORTS INTO UNITED KINGDOM UP TO MARCH 7th, 1910.

IN GALLONS.

[ALL RIGHTS RESERVED.]

COUNTRY.	ILLUMINATING.		LUBRICATING.		RESIDUALS.		GAS OIL. (Solar)		BENZINE.		FUEL OIL.		OTHER DESCRIPTIONS.		TOTALS.	
	Since Feb. 21.	From Jan. 1.	Since Feb. 21.	From Jan. 1.	Since Feb. 21.	From Jan. 1.	Since Feb. 21.	From Jan. 1.	Since Feb. 21.	From Jan. 1.	Since Feb. 21.	From Jan. 1.	Since Feb. 21.	From Jan. 1.	Since Feb. 21.	From Jan. 1.
Austria ...	—	—	8,000	29,500	—	—	—	—	—	—	—	—	—	—	8,000	29,500
Belgium ...	—	—	22,400	90,950	—	—	—	—	—	—	—	—	—	1,800	22,400	92,750
Canada ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dutch India.	—	—	—	—	—	—	—	—	—	3,833,870	—	—	—	—	—	3,833,870
Germany ...	32,130	181,880	41,830	200,310	—	2,000	—	—	—	—	—	4,840	—	3,200	73,960	392,230
Holland ...	—	530	200	830	—	—	—	—	48,650	410,100	—	—	—	4,470	48,850	416,930
Roumania ...	2,704,070	2,704,070	—	—	—	134,750	—	—	—	950,400	—	—	—	—	2,704,070	3,789,220
Russia ...	1,068,360	1,878,360	416,630	1,642,990	—	—	—	—	7,160	7,160	—	—	—	240	1,492,150	3,528,750
U.S.A. ...	997,230	12,410,300	1,426,160	7,910,950	—	44,500	4,376,200	12,667,150	610,450	2,314,400	603,020	1,737,200	32,930	85,190	8,045,990	37,169,690
Other Countries	—	480,270	3,700	7,460	—	—	—	—	40	194,970	—	—	—	1,600	3,740	684,300
	4,801,790	17,655,410	1,918,920	9,882,990	—	181,250	4,376,200	12,667,150	666,300	7,710,900	603,020	1,742,040	32,930	96,500	12,399,160	49,936,240

A HANDBOOK UPON PETROLEUM MINING.

MR. A. BEEBY THOMPSON'S NEW WORK.

Mr. A. Beeby Thompson, A.M.I.M.E., F.G.S., the author of "The Oil Fields of Russia" has recently completed another work which should rank among the most valuable literary efforts associated with the petroleum industry. The title of the new work is "Petroleum Mining and Oil-Field Development," and is an exhaustive guide to the exploration of petroliferous lands as well as embodying a study of the various engineering problems associated with the production of petroleum.

The book is published by Messrs. Crosby Lockwood and Son, and like all the publications which emanate from this well-known publishing house, is produced in a style which leaves nothing to be desired.

The hand-book, which contains nearly 400 pages, embodies a mass of information bearing upon the important subjects treated, and this is rendered the more attractive by over one hundred high-class illustrations.

In the eleven chapters which comprise the work, Mr. Beeby Thompson deals in a very thorough manner with the geographical distribution of petroleum, the conditions necessary for the formation and affecting the accumulation of petroleum and its origin and composition, while in order to render the handbook of the utmost practicability in petroleum mining, the author details the various systems of boring, as well as the methods employed for casing boreholes, dwelling also upon the exclusion of water from the borehole and the various processes associated therewith. In the closing chapters of the work, the combustion of liquid fuel is treated with, while many details are given regarding the measurement, transmission and utilisation of natural gas.

We have perused this latest publication from cover to cover, and can recommend it as a serious handbook wherein a wealth of information will be found of the greatest value to every student of petroleum mining.

ENGLISH PATENTS.

(Specially contributed by Messrs. EDWARD EVANS & Co., Consulting Engineers, Chartered Patent Agents, and Enrolled Patent Attorneys, of the United States, of 27, Chancery Lane, London, W.C.

APPLICATIONS FILED IN GREAT BRITAIN.

Improvements in Petroleum Incandescent Lamps.—Alexander Krzywiec, 33, Cannon Street, London. No. 3720 of 1910.

Improved Valve for Drawing off the Contents of Oil or Other Barrels, Drums, and the Like.—Edward George Nicholson and Walter Bruit Hill, 17, Drayton Gardens, West Ealing. No. 4534 of 1910.

Improvements in Carburettors or Vaporizers for Use of Heavy Oils as Applied to Internal-Combustion Engines.—Arthur Downs and John Hesketh Pearson, 104, Eastern Road, Brighton. No. 4583 of 1910.

APPLICATIONS PUBLISHED IN GREAT BRITAIN.

Oil-Vapour Burners, such as used for Incandescent Lamps.—The Gas Economising and Improved Light Syndicate, Ltd., 138, Leadenhall Street, London, E.C., John Wilkie, 24, Bayham Place, Camden Town, London, N.W., and Oliver Prescott Macfarlane, 138, Leadenhall Street, London, E.C. No. 21819 of 1909.

This relates to a vapour burner for incandescent lamps, having a single air inlet at or near the level of the vapour nipple, and means for preventing the air current deflecting the vapour jet, and in which the mixing tube is extended upwards in front of the inlet.

Hydrocarbon Heating Burner.—Joseph Stubbers, of Conington, County of Kenton, State of Kentucky, United States of America. No. 13943 of 1909.

This relates to a hydrocarbon heating burner for use with a supply in which the air and gas are already properly mixed, and consists in providing a gas pipe and burner thereon formed with communicating orifices, the burner being formed with ignition orifices and a sleeve movable longitudinally of the gas pipe and engaging the pipe and burner for the purpose of simultaneously covering and uncovering the gas orifices, to control the volume of gas admitted to the burner and escaping through the ignition orifices.

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PETROLEUM IMPORTS INTO THE UNITED KINGDOM DURING FEBRUARY.

THE SHIPMENTS INTO VARIOUS PORTS.

The imports of petroleum and its products into the United Kingdom during February are given in the following table, which has been specially compiled to shew the shipments into the various ports. The total for the month is 24,149,030 gallons, as compored with 19,307,330 gallons for January. The details are :—

Port.	Illuminating.	Lubricating.	Residuals.	Gas Oil. (Solar.)	Benzine.	Fuel Oil.	Other Descriptions.
Aberdeen	10,060	1,910	—	—	—	—	—
Barrow	429,400	—	—	—	610,450	—	—
Belfast	12,000	630	—	—	—	—	—
Boston	—	440	—	—	—	—	—
Bristol	3,336,390	174,270	—	—	—	—	1,290
Cardiff	—	2,870	—	—	—	—	—
Dublin	—	330	—	880,000	—	—	—
Dundee	1,200	—	—	—	—	—	—
Glasgow	—	270,120	—	—	—	—	—
Grangemouth	32,800	8,240	—	—	—	—	—
Grimsby	—	1,060	—	—	—	—	—
Harwich	—	1,150	—	—	—	—	—
Hull	—	204,120	—	—	—	—	400
Leith	32,700	54,460	—	—	—	—	—
Liverpool	10,050	663,520	—	917,820	—	99,110	18,590
London	5,466,420	2,926,800	—	341,080	1,908,920	—	2,200
Manchester	2,513,360	445,190	—	1,878,650	—	453,810	2,560
Middlesbro'	—	240	—	—	—	—	—
Newcastle	4,240	8,360	—	—	—	—	—
Southampton	420,000	—	—	—	—	—	—
Swansea	—	1,820	—	—	—	—	—
Totals	12,268,620	4,765,530	—	4,017,550	2,519,370	552,920	25,040

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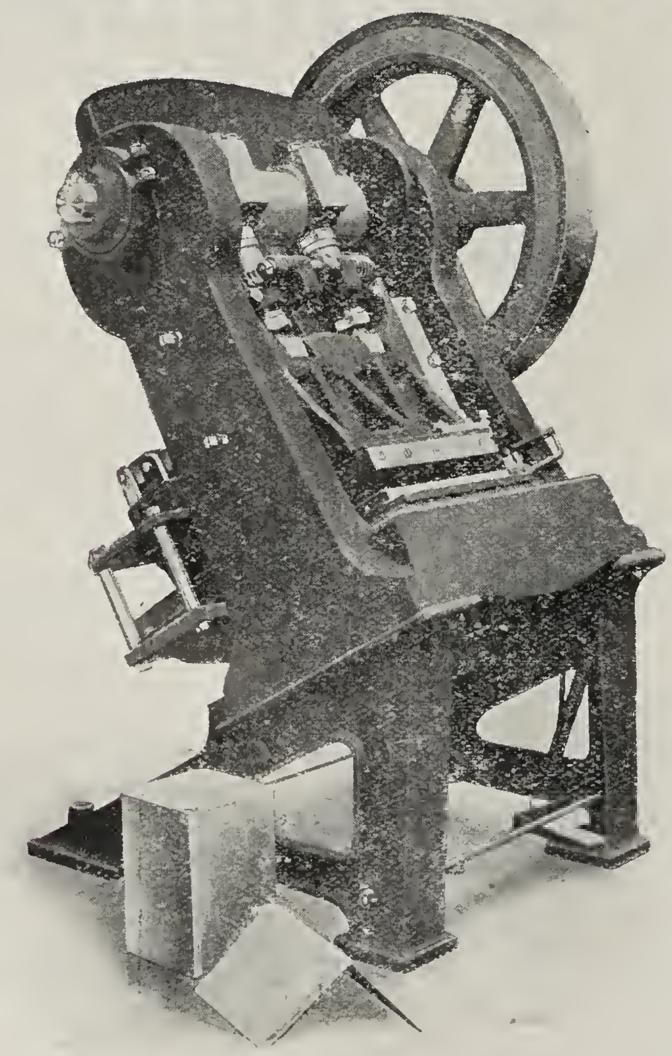

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LONDON—MANSION HOUSE CHAMBERS, E.C.

PARIS –
CHOUREAUX, 3 RUE DU SOUVENIR, ASNIERE, SEINE.

The American Oil Market.

New York, Week ended Feb. 26th.

The severity of the winter has had a generally retarding effect upon operations in the Eastern fields, in many of which work was practically impossible owing to the heavy covering of snow. Operators on the whole are preparing for their usual resumption of development work by spring, and indications point to drilling of a more venturesome character in many sections which have not been thoroughly tested. West Virginia promises to be one of the most active centres of wildcat operations during the coming season. The history of the Shinnston pool in Harrison county, the most prolific of the new developments in the high grade fields last year, will undoubtedly act as a stimulus to the more thorough exploitation of territory outside of the established fields of the State. The resources of the Shinnston formation, says the *Oil, Paint and Drug Reporter*, were again demonstrated within the last few days by "shooting" some of the wells that came in light producers, as well as some of the completions which have shewn a material slump from a large initial capacity. As a result the total output of the pool, which had fallen below 5,000 barrels a day, was raised to 7,000 barrels, but it was not believed that the higher level could be maintained unless new wells of more than average production were brought in. The prospects for an extension of the pool are still considered encouraging. Several wells of exceptional capacity have been drilled in the Ingomar development of Allegheny county, Pennsylvania, the three best being reported good for 175, 90, and 50 barrels a day respectively. In the South-eastern Ohio section the deep sand formation of Fairfield and Perry counties is attracting wider interest, and the unusual results that have been experienced around Bremen, Fairfield county, have occasioned a town lot development there. The two record producers in the formation were reported to be holding up at 255 and 335 barrels a day respectively, and with several later completions of more than average capacity, the output has been increased to 5,000 barrels a day. In the Alliance district of Columbiana county a well promising for a 50-barrel producer was completed, and a valuable gas well was drilled in wildcat territory seven miles south-east of Homeworth, in Hanover township. No particular activity is noted in the Lima fields of North-western Ohio and Indiana. Indiana furnished a completion of surpassing interest in the Muncie district of Delaware county, coming in at the rate of 250 barrels a day. The Bridgeport field of Lawrence county is now the Mecca of operators, and a campaign of active drilling has been planned. Our Mid-Continent correspondent writes more encouragingly of conditions there, and with the demand in excess of supply, he believes a higher market will prevail shortly.

Refined and Products.—Apparently steady conditions have characterised the local market for refined during the interval, but nothing suggestive of a feature has been occasioned. Trading follows the usually conservative lines, suggested by the continued easy position of crude, and the general tendency on the part of buyers is to operate well within the actual requirements. Competition for the export trade continues keen, and the volume of sales of domestic refined is generally below that of the corresponding period of last year. Six tank steamers cleared from New York during the last week with naphtha, residuum, refined and crude petroleum in bulk. They were :—The German steamer "Prometheus" for Flushing, with 2,756,785 gallons naphtha; the British steamer "Ottawa" for London and Birkenhead, with 565,000 gallons residuum and 660,000 gallons refined; the British steamer "Suwanee" for Vera Cruz, with 312,700 gallons crude, and to Tampico with 893,300 gallons crude; the British steamer "Winnebago" for Port Said, with 1,400,000 gallons refined; the German steamer "Buffalo" for Flushing, with 3,000,000 gallons refined, and the German steamer "Excelsior" for Flushing with 1,637,860 gallons refined.

CLOSING QUOTATIONS.

Crude at the Wells.

The quotations for oil represented by credit balances were :—

	Week ended Feb. 26. 1909.	Feb. 26. 1910.
Pennsylvania	$1·78	$1·40
North Lima	1·04	0·84
South Lima	0·99	0·79
Indiana	0·99	0·79
Illinois, heavy, below 30 deg. ..	0·60	0 52
Kansas and Indian Ter., 30 deg. and above	0·41	0·35
Heavy	0·28	0·28
Humble, Tex.	0·53	0·75
Saratoga	0·53	0·75
Sour Lake, Tex.	0·53	0·77
Jennings, La.	0·55	0·54
Canadian Oil :—		
Petrolia	1·44	1·24
Oil Springs, less pipeage	1·51	1·31

Refined—For Export.

In cents.	Week ended Feb 26. S.W. 110 test.	W.W. 150 test.
Barrels, cargo .. .. per gal.	7·90	@ 9·40
Philadelphia	7·90	@ 9·40
Bulk, New York	4·40	@ 5·90
Bulk, Philadelphia	4·40	@ 5·90
Cases, New York	10·30	@11·80
Cases Philadelphia	10 30	@11·80

Refined in Cases—110 Fire Test.

	Week ended Feb. 19. 1910.	Feb. 26. 1910.
3,000 to 10,000	10·45	10·45
1,000 to 3,000	10·50	10·50

Refined—Jobbing Lots.

In barrels, pkgs. included.

	Week ended Feb. 19.	Feb. 26.
130 fire test, S.W.	11¼	11¼
150 fire test, W.W.	11¾	11¾
In bulk from tanks	9	8½

Naphtha and Gasolene.

	Week ended Feb. 19.	Feb. 26.
Naphtha, V. M. and P. deod. ..	12	12
Gasolene, 86 deg.	21¾	22¾

Pennsylvanian Oil Runs from February 3rd to February 15th were :—February 9th, 174,014*; February 10th 11th and 12th, 302,208*; February 13th, 464,316*; February 14th, 99,478; and February 15th, 16,051*.

The Deliveries of Pennsylvanian Oil from February 10th to February 16th were:—February 10th, 199,242*; February 11th, 12th and 13th, 573,679*; February 14th, 415,323*; February 15th, 173,866; and February 16th, 156,192*.

* Includes Illinois Oil.

Clearances for the Week.

During the week ended Feb. 25th and since Jan. 1, the clearances of petroleum, in gallons, from the port of New York, were as follows :—

	Week.	Year.	1909.
Refined	8,354,470	60,375,700	78,058,550
Crude	1,371,000	2,275,895	5,276,030
Naphtha	2,905,025	11,522,630	1,847,100
Residuum ..	599,750	1,115,250	60,850

Export Statistics.

The total exports from the port of New York and from the United States have been :—

	Gallons.
From New York, week ended Feb. 25th ..	12,510,293
Total from New York, from Jan. 1st, 1910 ..	82,776,828
Same period last year..	104,021,763
Decrease	22,244,935
From United States, week ended Feb. 25th	17,419,479
Total from United States, since Jan. 1st, 1910	123,105,441
Same period last year..	176,585,650
Decrease..	53,480,209

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The "Review" Shipping List.

MARCH 11, 1910.

(The following abbreviations are used in this table:—L. Left; P. Passed; Arr. Arrived; Sp. Spoken; Tr. Trading.)
Anglo-American Co.'s vessels marked thus (□): the Anglo-Saxon Co.'s tankers thus (*): and Messrs. Lane and Macandrew's thus (†).

Vessel.	From.	For	Latest Date and Position.
ALCHYMIST	Seville	Algiers	Arr. Mar. 4
ALICE ET ISABELLE (Fr. bq.)	New York	Rouen	In Port, laid up
AMERICAN	Antwerp	New York	Arr. Mar. 2
APPALACHEE □	Hamburg	New York	Arr. Feb. 25
APSCHERON	Batoum	Venice & Trieste	At Venice, Mar. 8
ARAL	Tuborg	Tyne	In Port, Mar. 8
ARAS	Penarth	Kustendje	P. Tarifa, Mar. 3
ASHTABULA □	Singapore	San Francisco	Arr. Feb. 6, in Port, Feb. 24
ASTRAKHAN	Rotterdam	Tyne	In Port, Mar. 8
AUGUSTA	Brunsbuttel	Hamburg	In Port, Mar. 8
AUREOLE	Amsterdam	Galveston	P. Lizard, Feb. 27
AZOV	Tyne	Callao	P. Beachy Head, Feb. 8
BAKU STANDARD	Cardiff	Tyne	In Port, Mar. 8
BALAKANI†	Grangem'uth	New Orleans & Mobile	F. Dover, Mar. 1
BATOUM	London	Tyne	In Port, Mar. 8
BAYONNE	Batoum	Philadelphia	P. Gibraltar, Feb. 24
BEACON LIGHT	Penarth	Batoum	P. Peniche, Mar. 2
BLOOMFIELD	London	Thameshaven & Emden	L. Mar. 9
BORJOM	—	—	Tr. b'tw'n Black Sea & Levant
BRILLIANT	Philadelphia	Swinemunde	P. Del. Break., Feb. 18
BRILLIANT (Br. bq.)	Bombay	Baltimore & Philadelphia	L. Jan. 5
BRITISH SUN	Sheerness	Tyne	Arr. Mar. 3, in Port, Mar. 8
BROADMAYNE	Tonsberg	Tyne	In Port, Mar. 8
BUFFALO	New York	Hamburg	Arr. Mar. 8
BULLMOUTH*	Bombay	Aroe Bay	At Singapore, Feb. 25
BULYSSES*	Singapore	Yokohama	L. Feb. 24
BURGERMEISTER PETERSEN	Hamburg	New York	Sd. Tyne, Feb. 22
BUYO MARU	Shimonoseki	Noumea	L. Jan. 22
CADILLAC	Karikal	Bengkalis	L. Jan. 30
CALCUTTA (B. b.) □	Yokohama	San Francisco	Arr. Mar. 3
CAMILLO (Late "Joyo Maru")	Barry	Port Arthur (Texas)	L. Feb. 26
CAPTAIN A. F. LUCAS	Boston	New York	Arr. Feb. 11, in Port, Feb. 26
CARDIUM*	New York	India (via Suez)	L. Feb. 24
CARPATHIAN†	Newport Nws.	Rotterdam	L. Mar. 7
CAUCASIAN†	Philadelphia	Rotterdam	L. Mar. 3
CHARLOIS	Rotterdam	New York	Arr. Mar. 8
CHESAPEAKE □	Bombay	Balekpappan	P. Galle, Feb. 15
CHESTER	Antwerp	Philadelphia	P. Lizard, Feb. 22
CHEYENNE	Savona	Philadelphia	At New York, Feb. 25
CITY OF EVERETT	New York	Port Arthur (Texas)	P. Cape Hatteras, Feb. 15
CIUDAD DE REUS	Barcelona	Batoum	L. Feb. 27
CLAM*	Hong Kong	Sarakan	L. Mar. 3
CLEARFIELD	Rouen	Tyne	Arr. Mar. 2, in Port, Mar. 8
CONCH*	Tyne	New York	P. Dover, Feb. 26
CONRAD MOHR	Philadelphia	Christiana	Arr. Mar. 5
COWRIE*	Balekpappan	Tsingtan (f.o.)	L. Mar.
CUYAHOGA □	Venice	Alexandria	L. Mar. 1
CYMBELINE	Campana	St. Lucia	Sd. Buenos Ayres, Feb. 20
CZAR NICOLAI II.	Hamburg	Batoum	P. Eastbourne, Mar. 4
DAGHESTAN	Hamburg	Philadelphia	Arr. Mar. 8
DAKOTAH □	San Francisco	Shanghai	At Yokohama, about Mar. 9
DANUBIAN†	Newport Nws	Amsterdam	L. Feb. 23
DELAWARE □	New York	Liverpool	L. Feb. 24
DERBENT	Antwerp	Batoum	P. Gibraltar, Mar. 3
DEUTSCHLAND	New York	Copenhagen	P. Dover, Mar. 6
DIAMANT	New York	Hamburg	L. Mar. 2
EDWARD DAWSON	Zeebrugge	Tees	Arr. Mar. 6, in Port, Mar. 7
EL LOBO	San Francisco	Payta	At Lobitos, Mar. 1
ELAX*	Singapore	Kobe	L. Mar. 8
ELISE MARIE	Stettin & Tyne	Philadelphia	P. Dunnet Head, Feb. 23
ENERGIE	Philadelphia	Hamburg	Arr. Feb. 24, in Port, Mar. 8
ERIVAN	Tyne	Batoum	P. Sagres, Mar. 8
EUPLECTELA*	Shanghai	Balekpappan	L. Mar. 2
EXCELSIOR	Rotterdam	New York	P. Scilly, Mar. 3
FRANCE MARIE (French bq.)	Santander	Marseilles	In Port, Mar. 8
GEESTEMUNDE	Bremerhaven & Tyne	New York	P. Dunnet Head, Feb. 27
GENESSE □	London	Philadelphia	At Fayal, Feb. 28
GEORGIAN PRINCE	Vallo	Tyne	In Port, Mar. 8
GOLDMOUTH*	Singapore	Europe	Sd. Port Natal, Feb. 24
GUTHEIL	Boston	Cuba	L. Mar. 7
H. C. HENRY	Tees	Seattle	Sd. Madeira, Feb. 18
HAINAUT (Du. sh.)	New York	Antwerp	L. Feb. 23
HARRY WADSWORTH	Sabine	London	S. Norfolk (Va.), & P. Cape Henry, Feb. 24
HELIOS	Philadelphia	Hamburg	Arr. Mar. 4, in Port, Mar. 8
HERMIONE	Rangoon	—	L. Feb. 22
HESPERUS	New York	Avonmouth	L. Mar. 8
HOTHAM NEWTON	Zeebrugge	Hull	Arr. Jan. 16, in Port, Mar. 9, laid up
HYRCANIA	Manchester	Batoum	Cld. Constant'ple, Mar. 3
IOANNIS COUTZIS	Batoum	Rouen	Cld Constant'ple, Feb. 28
IROQUOIS □ (towing barge Navahoe)	London	New York	In Wireless Com., Feb. 26, 11.20 p.m
J. B. AUG. KESSLER	Novorossisk	Gibraltar	P. Constant'ple, Mar. 6
JAMES BRAND	Tyne	New York	Arr. Mar. 5
JULES HENRI (French bq.)	Cette	Marseilles	In Port, Mar. 8
KURA	Penarth	Philadelphia	P. Barry Island, Mar. 1
LA CAMPINE	Antwerp	Tyne	Arr. Feb. 4, in Port, Mar. 8
LA FLANDRE	Antwerp	Philadelphia	Arr. Mar. 8
LA HESBAYE	Antwerp	Kustendje	P. Gibraltar, Mar. 4
LACKAWANNA □	Manchester	Philadelphia	P. Eastham, Feb. 27
LE COQ†	Kustendje	Bordeaux	L. Mar. 8
LOUTSCH	Cette	Odessa	Arr. Mar. 3
LUCERNA	Ghent	Novorossisk	Arr. Mar. 7
LUCIGEN	Trial Trip	Tyne	In Port, Mar. 8, laid up
LUCILINE†	Kustendje	Rouen	P. Pera, Mar. 5
LUMEN	Tyne	Trial Trip	L. Mar. 8
LUTETIAN†	Newport (Mon.)	Tyne	Arr. Feb. 11
LUX†	Cardiff	Novorossisk	Mar. 5
MANHATTAN	Tunis	New York	Arr. Mar. 7
MANNHEIM	New York	Swinemunde	L. Mar. 2
MARGARETHA	Kustendje	Spezia	Cld. Constant'ple, Mar. 2
METEOR	Nagasaki	Vladivostock	Arr. Feb. 11
MEXICAN PRINCE	Cienfuegos	U.K. or Cont.	L. Mar. 1
MINA BREA	Caleta Buena	Callao	L. Jan. 27
MINHLA	Rangoon	Bombay	L. Feb. 28
MIRA	Calais	Blyth	In Port, Mar. 8, laid up
MUREX*	Soesoe	Singapore	Arr. Mar. 7
NARRAGANSETT	London	New York	Arr. Feb. 27

Vessel.	From.	For.	Latest Date and Position.
NAVAHOE	London	New York	Sp. Mar. 2, about 50 N., 22 W., in tow of "Iroquois"
NEW YORK□	New York	Rotterdam	L. Feb. 26
NIAGARA	Sabang	—	Sd. Port Natal, Mar. 3
OBERON	Taltal	San Francisco	Arr. Mar. 10
OCEAN	Kustendje	Antwerp	P. Gibraltar, Mar. 8/9
OILFIELD	Rouen	Tyne	In Port, Mar. 8
ORIFLAMME†	Havre	Tyne	Arr. Mar. 2
OTTAWA□	New York	London	Arr. Mar. 5 & Sd. Mar. 8, Grangemouth
OURAL	Rouen	Antwerp	Arr. Feb. 22, in Port, Mar. 8
PATELLA*	Samboe	San Francisco	Sd. Muroran, Mar. 6
PAUL PAIX	Tees	Kustendje	P. Gibraltar, Mar. 9
PAULA	Philadelphia	Landscrona & Malmo	P. Del. Break., Feb. 24
PECTAN	Panama	P. San Luis	L. Feb. 19
PENNOIL	Tyne	Philadelphia	P. Dunnet Head, Feb. 27
PETROLEA	Gothenburg	Hull	Arr. Feb. 21
PETROLEINE	Cette	Novorossisk	P. Constant'ple, Mar. 9
PHOEBUS	Rotterdam	New York	P. Scilly, Feb. 27
PINNA†	Colombo	Perim	L. Mar. 4
POTOMAC□	Manchester	New York	P. Eastham, Mar. 2
PROGRESSO ARGENTINA (Ar. bq.)	Port Arthur (Texas)	Buenos Ayres	Arr. Dec. 10
PROMETHEUS	Emden	New York	L. Mar. 7
PRUDENTIA	Port Arthur (Texas)	London	L. Feb. 27
PURELIGHT	Philadelphia	Hamburg	P. Prawle Pt., Mar. 8
QUEVILLY (Fr. bq.)	Rouen	Havre	In Port, Mar. 8
RENDOVA (Br. bq.)	Bonanza	Sydney	Arr. Feb. 8
RION	Blyth	Batoum	P. Prawle Pt., Feb. 23
ROCK LIGHT†	Bermuda	Galveston	Arr. Mar. 7
ROMANY*	Aomori	Balekpappan	Sd. Hong Kong, Mar 7
ROTTERDAM	Amsterdam	New York	Arr. Mar. 8
ROUMANIAN†	Hull	Port Arthur (Texas)	P. Dover, Mar. 6
RUSSIAN PRINCE	Havana	Liverpool	Arr. Feb. 22, in Port, Mar. 9
SALAHADJI*	Balekpappan	Tarakan	L. Mar 3
SAN ANTONIO	London	Southampton & P. Mexico	At Southampton, Mar. 9
SAN IGNACIO DE LOYOLA (Sp. bq.)	New York	Pasages	L. Jan. 26
SANTA MARIA	P. San Luis	Portland (O.)	L. Feb. 12
SANTA RITA	Port Harford	San Jose (Guat.)	Arr. Feb. 18
SARANAC□	Liverpool	New York	At Philadelphia, Mar. 3
SAXOLEINE	Tyne	Novorossisk	P. Gibraltar, Mar. 7
SEMINOLE□	Shanghai	San Francisco	Arr. Feb. 21, in Port, Feb. 24
SERVIAN†	Eastham	Port Arthur (Texas)	L. Feb. 26
SIRIUS	—	—	At Hamburg, Mar. 8
SNOWFLAKE	Cette	Newport	In Port, Mar. 9
SOYO MARU	Lobitos	Yokohama	Arr. Feb 6
SPONDILUS*	Samboe	Europe	P. Las Palmas, Mar. 8
STANDARD	New York	Hamburg	L. Feb. 26
STROMBUS*	New York	Madras & Calcutta	Sd. Suez, Mar. 7
SULTAN VAN LANGKAT*	Soesoe & Madras	Colombo	Sd. Madras, Mar. 5
SUNLIGHT (Br. bq.)	Avonmouth	Macoris	Arr. Feb. 17
SURAM	Kustendje	—	Off Constant'ple, Mar. 10 (after stranding)
SUWANEE□	New York	Tampico	L. Feb. 14
SVIET	Alexandria	Batoum	Cld. Constant'ple, Mar. 4
TAMARAC□	London	New York or Philadelphia	In Wireless Com., Mar. 8, 8.20 a.m.
TELENA*	Alexandria	Tyne	L. Mar. 3
TEREK†	Hamburg	Kustendje	L. Mar. 7
TIFLIS	Tyne	Batoum	Off Ushant, Mar. 7
TIOGA□	Dublin	Kustendje	L. Mar. 4
TONAWANDA□	Tyne	Philadelphia	L. Feb. 20
TRINCULO	P. San Luis	Panama	Arr. Feb. 20
TROCAS*	Shanghai	Bremerhaven & Hamburg	L. Mar. 5
TUSCARORA	New York	Bombay	P. Perim, Mar. 5
VEDRA	Batoum	Antwerp	P. Constant'ple, Mar. 2
VILLE DE DIEPPE (Nor. bq.)	Philadelphia	Rouen	Arr. Sept. 7, in Port, Jan. 24, laid up
VOLUTE*	Scesoe	Singapore	Arr. Mar. 7
WASHINGTON	Hamburg	Baltimore	Sd. Tyne, Feb. 28
WASHTENAW	Port San Luis	Astoria	Arr. Jan. 26
WEEHAWKEN	Thameshaven	Barrow	Arr. Mar. 8
WILLKOMMEN	Philadelphia	Flushing	P. Dunnet Head, Mar. 8
WINNEBAGO	New York	Port Natal	L. Feb. 18

Latest Market Intelligence.

LONDON OIL MARKET.

Supplied by Messrs. Benjamin & Gee, 31, St. Mary Axe, E.C.

March 11th, 1910.

There are still no alterations to report in the price of Refined Petroleum, quotations remaining as follows:—Russian, 5¾d.; Roumanian, 7d.; American, 6d.-6¼d.; Water White, 7d.-7¼d.

LUBRICATING OILS

are unchanged, the latest quotations being:—

American pale, £6 10s. to £9 10s.
American dark cylinder, from £7 12s. 6d.
American filtered cylinder, from £10 12s. 6d.
No. 1 Russian, for Spot, £8.

TURPENTINE.

American Turpentine has been fairly firm, the fluctuations not being as much as usual since our last report. The season for this article is now commencing, and we may look for firm prices. The current quotations are for Spot, 42s. 3d.; May-June, 42s.; July-December, 38s. 9d.

LIVERPOOL OIL MARKET.

March 10th.

Refined oils are quiet, and sellers quote 6d., for Russian, Galician or Roumanian; and 6½d. to 7d. per gallon for American.

LATEST AMERICAN PRICES.

New York, March 10th.

Refined, in cases, is steady at 10·30; Standard White, 7·90; Credit balances, 1·40.

Philadelphia, March 10th.

Standard White is now quoted at 7·90.

GERMANY.

Hamburg, March 10th.

The petroleum market is without any change. American, ·800–6·30 marks; Pennsylvanian, 6·40 marks; Galician, 6·30 marks. Russian and Roumanian not on the market.

RUSSIA.

Baku, March 8th.

The market is now without change. Crude oil is quoted at 18¼-18½ copecs per pood spot. Kerosene, in ships, 23¾ copecs spot; 27 copecs next navigation. Mazout 19 copecs. Export at Batoum is stagnant.

BELGIUM.

Antwerp, March 9th.

The petroleum market is without change. Price of Standard White, spot, 22·50 francs per 100 kilos.

ROUMANIA.

March 9th.

	Francs.
Crude oil from different fields, including pipe line charges, per 100 kgs.	3·50–3·60
Refined oil, exclusive of taxes, ex. refinery	8·30
Residuals in tank waggons, at refinery	3·50–3·60
Paraffin	110–120

Prices for Export.

Refined oil, f.o.b., per 100 kgs.	6·00–6·50
Benzine, sp. gr. 0·710–0·715, f.o.b.	16–17
„ sp. gr. 0·715–0·720 „	14·50–15·50
„ sp. gr. 0·730–0·740 „	10–11
„ sp. gr. 0·745–0.755 „	9–10
Lubricating, horticultural	33
„ prime	36
„ extra	42
„ Royal, "Steaua Romana"	46
Imperial "Aurora"	46
Vacuum-Ideal "Vega"	52

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IMPORTS of PETROLEUM into UNITED KINGDOM

Specially prepared for this Journal by the Custom House.

FOR THE WEEK ENDED FEBRUARY 28TH, 1910—

Date.	Port and Importers.	Description.	No. of Gals.	Port Whence.
Feb.	LONDON—			
22	Mordaunt Bros.	Lub.	2,700	New York
22	British Monogram Oil Co.	,,	830	,,
22	W. H. J. Alexander	,,	4,800	,,
22	Fielder, Hickman and Co.	,,	73,920	,,
22	,,	Lub. Gr.	2,400	,,
22	Union Lighterage Co.	Lub.	12,240	,,
23	J. Lennard and Co. (E. Dawson)	,,	404,850	Batoum
23	Port of London Authority	,,	960	Hamburg
23	Anglo-American Oil Co.	,,	120,800	New York
23	Schlieman's Oil Co.	Lub. Oil and Gr.	3,450	Hamburg
23	British and Foreign Wharf	Lub.	600	Antwerp
23	W. F. Watt	,,	2,000	Hamburg
23	Asiatic Petroleum Co.	Benzine	5,000	Rotterdam
24	Mercantile Lighterage Co.	Lub.	7,250	New York
24	Anglo-American Oil Co.	,,	31,000	Philadel.
24	R. Park and Co.	,,	1,540	Marseilles
24	Page, Son and East	Lub. Oil and Gr.	320	Antwerp
24	J. Harrison	Lub. Gr.	150	,,
24	United Shipping Co.	Lub.	40	Bremen
24	T. H. Lee	,,	450	Hamburg
25	E. J. Walkenshaw	,,	2,400	,,
25	Schlieman's Oil Co.	Lub. Gr.	3,000	,,
28	Snowden, Sons and Co., Ltd.	Lub.	2,970	,,
28	British and Foreign Wharf	,,	580	Antwerp
28	Page, Son and East	Lub. Oil and Gr.	200	,,
28	J. Harrison	Lub. Gr.	300	,,
28	Anglo-American Oil Co.	Lub.	6,000	New York
16	(by query) W. A. Caton	Sebbo Naph.	40	Dunkirk
	LIVERPOOL—			
22	C. C. Wakefield	Lub. Gr.	80	Antwerp
22	J. T. Fletcher and Co.	,,	80	,,
22	Anglo-American Oil Co. (Saranac)	Fuel	99,110	New York
24	Liverpool Warehousing Co.	Lub. Gr.	320	Hamburg
24	Pickfords, Ltd.	Lub. Oil and Paste	420	,,
26	W. B. Dick and Co.	Lub.	15,500	New York
28	Huxley and Co.	,,	1,140	,,
28	Liverpool Storage Co.	,,	1,020	,,
28	Valvoline Oil Co.	,,	8,200	,,
28	G. B. Taylor	,,	63,480	,,
28	D. Owen and Son	,,	6,710	,,
28	J. Light and Son	,,	400	Antwerp
	BARROW—			
23	Anglo-American Oil Co. (Weekawken)	Spirit	610,450	New York
23	,, ,,	Lamp	429,400	,,

Date.	Port and Importer.	Description.	No. of Galls.	Port Whence.
Feb.				
	BOSTON—			
22	W. F. Beaumont	Lub.	200	Hamburg
26	,,	,,	240	,,
	BRISTOL—			
24	W. G. Clarke	,,	480	Antwerp
26	Pickfords, Ltd.	Lub. Oil and Paste	200	Hamburg
26	Anglo-Bosphorus Oil Co.	Lub.	1,250	,,
26	H. Pritchard and Co.	,,	6,930	New York
26	C. Hill and Sons	,,	31,200	,,
	HULL—			
22	Wilsons and N.E. Co.	,,	560	Antwerp
23	W. Hodgson and Co.	,,	3,040	Riga
23	W. Gilyott and Co.	,,	68,800	New York
23	T. Wilson Sons and Co.	,,	15,120	,,
23	Wilsons and N.E. Co.	,,	2,800	Hamburg
24	,,	,,	920	Antwerp
25	T. Wilson, Sons and Co.	,,	3,040	Riga
25	,,	,,	2,000	Christiania
	MANCHESTER—			
22	British Pet. Co. (Servian)	Lamp	558,000	Pt. Arthur
22	,, ,,	Gas	1,105,000	,,
23	,, (Kura)	Lamp	887,000	Kustendje
23	J. T. Fletcher and Co.	Lub.	440	Antwerp
23	Meade-King, Robinson & Co.	,,	35,320	Philadel.
23	,,	M.Colza	2,560	,,
23	Bramwell, Fern and Co.	Lub.	6,160	,,
23	G. B. Taylor	,,	139,520	,,
23	Homelight Oil Co. (Hyrcania)	Lamp	1,068,360	Batoum
24	Worthington and Boler	Lub.	630	Philadel.
	NEWCASTLE—			
24	Tyne Tees SS. Co.	,,	120	Hamburg
22	,,	,,	240	Antwerp
	SWANSEA—			
26	Burgess and Co.	L.Paste	220	Hamburg
	ABERDEEN—			
22	R. C. Reid and Co.	Lub	400	,,
	DUNDEE—			
24	A. Gray	Lamp	390	,,
	GLASGOW—			
25	Burrel and Son	L.Resid.	4,000	Trieste
	LEITH—			
22	G. Gibson and Co.	Lub.	270	Antwerp
22	J. Currie and Co.	,,	360	Bremen
22	,,	,,	2,170	Hamburg

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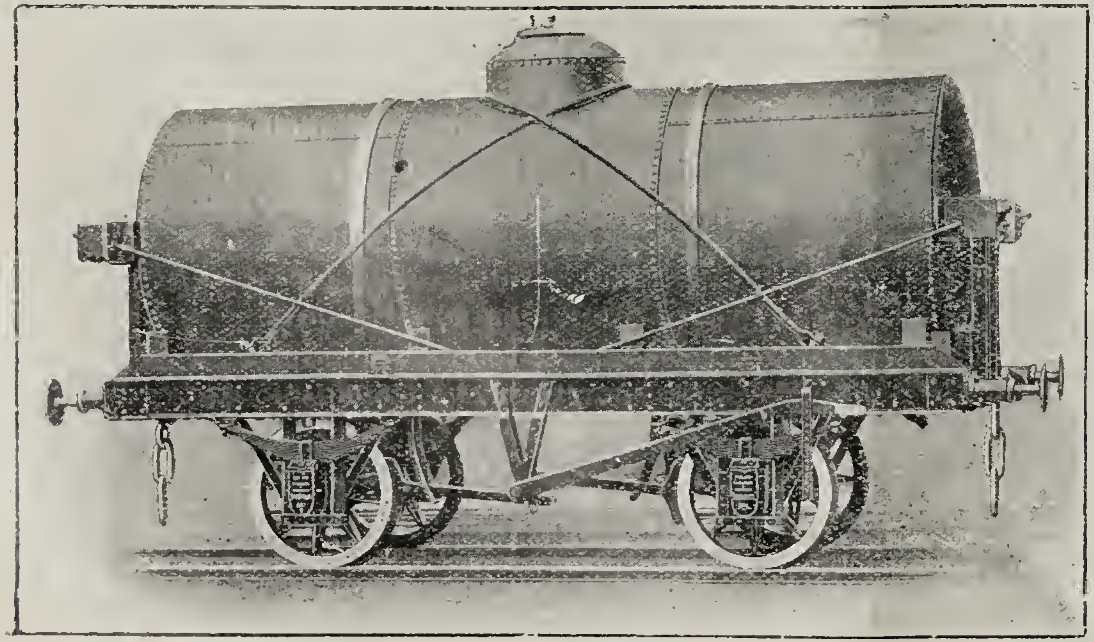

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rust at the joints and consequent leakage.
Stronger work. Less solder required.

IMPORTS.—(*Concluded*).

Date.	Port and Importers	Description.	No. of Galls.	Port Whence.
Feb.				
	Belfast—			
22	G. Heyn and Sons	Lub.	400	Riga
24	J. C. Pinkerton and Co.	,,	90	Hamburg
			5,875,530	
	Deduct to correct—			
	Manchester—			
2/2	G. B. Taylor	,,	29,000	New York
			5,846,530	
	Add to correct—			
	Hull—			
22/2	T. Wilson, Sons and Co.	,,	4,000	Trieste
	Total for the Week		5,850,530	

FOR THE WEEK ENDED 7TH MARCH, 1910—

Date.	Port and Importers.	Description.	No. of Galls.	Port Whence.
Mar.	London—			
1	Fielder, Hickman and Co.	Lub.	14,360	New York
1	Langley, Smith and Co.	,,	2,400	,,
1	Anglo-American Oil Co. (Tamarac)	Gas	1,617,000	Philadel.
1	Port of London Authority	Lub.	4,560	Hamburg
2	Mercantile Lighterage Co.	,,	65,800	New York
2	T. H. Lee	Lub. Gr.	510	Hamburg
3	Mercantile Lighterage Co.	Lub.	2,500	New York
3	Meade-King, Robinson & Co. (Bloomfield)	Gas	572,000	Pt. Arthur
3	Page, Son and East	Lub. Gr.	120	Antwerp
3	,,	Lub.	80	,,
3	Leach and Co.	,,	260	Ghent
3	J. Harrison, Ltd.	Lub. Gr.	1,490	Antwerp
4	Meade-King, Robinson & Co. (Bloomfield)	Gas	936,000	Pt. Arthur
4	W. F. Watt	Lub.	4,000	Hamburg
4	Anglo-American Oil Co. (Ottawa)	Fuel	503,910	New York
4	,, ,,	Gas	146,200	,,
5	C. Jameson	Lub.	800	Hamburg
5	Mordaunt Bros.	Lamp	10,000	,,
7	Page, Son and East	Lub.	280	Antwerp
7	,,	,,	160	,,
	Liverpool—			
1	Ismay, Imrie and Co.	,,	1,400	New York
1	,,	,,	2,000	,,
1	Vacuum Oil Co.	,,	16,020	,,
1	F. Cheesman and Co.	,,	2,000	Hamburg
1	D. Currie and Co.	Lub. Gr.	80	,,
1	Meade-King, Robinson & Co.	Benzine	43,650	Rotterdam
2	Liverpool Warehousing Co.	Lub. Gr.	120	Hamburg
2	G. B. Taylor	Lub.	37,000	New York
3	E. Harrison and Co.	,,	8,000	Philadel.
3	Meade-King, Robinson & Co.	Lamp	4,800	,,
4	Worthington and Boler	Lub.	4,200	,,
4	Crew, Levick and Co.	,,	5,150	,,
4	George B. Taylor	,,	10,000	,,
5	W. B. Dick and Co.	,,	36,400	,,
5	Crew, Levick and Co.	,,	18,780	,,
5	,,	M.Colza	5,220	,,
5	American Line	Lub.	1,000	,,
5	Meade-King, Robinson & Co.	,,	33,480	,,
7	G. B. Taylor	,,	3,400	,,
7	American Line	,,	4,000	,,
7	Meade-King, Robinson & Co.	,,	7,800	,,
7	,,	,,	5,440	Baltimore
7	,,	,,	5,280	Philadel.
7	W. Gibson and Sons	Lamp	1,030	Boston
7	Schofield and Co.	Lub.	4,170	Baltimore
7	A. Hopps and Sons	,,	2,740	,,
7	,,	L. Resid.	5,430	Newp't Nws.
7	Bowring Petroleum Co.	Lub.	620	Philadel.
7	Midland Railway Co.	,,	2,110	,,
7	D. Currie and Co.	,,	650	Hamburg
	Bristol—			
2	Ford and Canning	,,	4,790	New York
2	J. and R. Bush	,,	8,600	,,
3	Pickfords, Ltd.	Lub. Oil and Paste	620	Hamburg
3	,,	Lub.	240	Antwerp
	Goole—			
5	Lancs. and Yorks. Railway	,,	290	Hamburg
	Grimsby—			
3	J. Sutcliffe and Sons	,,	1,200	Antwerp
4	,,	,,	520	,,
4	,,	,,	180	Hamburg
	Harwich—			
3	Great Eastern Railway	,,	140	Antwerp
	Hull—			
1	Hull & Netherlands SS. Co.	,,	40	Amsterdam
1	Wilsons and N.E. Co.	,,	600	Antwerp
1	,,	,,	480	Ghent
Mar.				
29/1	W. Moran and Co.	C.Naph.	7,160	Reval
3	Wilsons and N.E. Co.	Lub.	200	Hamburg
3	,,	,,	1,980	Antwerp
4	British Pet. Co. (Rcumanian)	Lamp	1,816,000	Constantza
4	T. Wilson Sons and Co.	Lub.	1,360	Riga
7	,,	,,	62,680	New York
	Manchester—			
1	M. Wells and Co.	,,	5,600	Philadel.
3	W. Hodgson and Co.	,,	3,120	Riga
5	Worthington and Boler	,,	4,960	Philadel.
3	J. T. Fletcher and Co.	,,	420	Antwerp
3	Pickfords, Ltd.	,,	260	Hamburg
3	Wilson, Son and Co.	,,	160	Rotterdam
4	Meade-King, Robinson & Co.	,,	24,480	Philadel.
4	C. H. Morton and Son	,,	2,560	,,
4	,,	,,	2,600	,,
4	Meade-King, Robinson & Co.	Lamp	4,000	,,
4	,,	Lub.	2,560	,,
4	,,	M. Colza	16,600	,,
4	,,	,,	2,800	,,
4	,,	Lub.	76,560	,,
5	Manchester Liners	,,	2,600	,,
	To amend—			
23/2	British Pet. Co. (Kura)	Lamp	1,070	Kustendje
7	Meade-King, Robinson & Co.	M.Colza	2,600	Philadel.
7	Crew, Levick and Co.	,,	3,150	,,
7	,,	Lub.	2,080	,,
7	W. Hodgson and Co.	,,	3,540	,,
7	M. Wells and Co.	,,	2,600	,,
7	Bramwell, Fern and Co.	,,	660	New York
7	George B. Taylor	,,	19,080	Philadel.
7	,,	,,	118,600	New York
7	Manchester Liners, Ltd.	,,	2,000	Philadel.
	Newcastle—			
1	Tyne-Tees S.S. Co.	,,	80	Hamburg
1	,,	Lamp	4,000	,,
1	,,	Lub.	30	Antwerp
1	,,	,,	400	Hamburg
Feb.	Southampton—			
22	White Star Line	,,	120	New York
Mar.				
1	P. E. Curry	,,	1,640	,,
3	,,	,,	150	,,
3	White Star Line	,,	13,000	,,
	Swansea—			
1	Richards, Turpin and Co.	,,	1,000	,,
1	Burgess and Co.	Lub. Oil and Paste	220	Hamburg
	Aberdeen—			
6	R. Connon Reid and Co.	Lub.	40	,,
6	W. G. Yooll and Co.	Lamp	3,200	,,
	Glasgow—			
1	Allan Bros. and Co.	Lub.	46,000	Philadel.
1	Anchor Line	,,	20,600	New York
1	,,	,,	26,000	,,
	Grangemouth—			
1	W. Graham-Yooll and Co.	Lamp	4,000	Hamburg
Feb.	Leith—			
24	G. Gibson and Co.	Lamp	240	Antwerp
24	W. Graham-Yooll and Co.	Lub.	2,180	Hamburg
Mar.				
1	Henderson and McIntosh	Lub.	9,950	Philadel.
1	G. Gibson and Co.	,,	3,010	Antwerp
3	W. Graham-Yooll and Co.	Lamp	2,180	Hamburg
3	J. Currie and Co.	Lub.	400	,,
16/2	J. Cormack and Co.	,,	520	Riga
4	J. Currie and Co.	,,	240	Bremen
	Belfast—			
2	G. Heyn and Co.	,,	600	Riga
	Westport—			
4	Blacksod Whaling Co.	,,	160	Tonsburg
	Total		6,506,100	
	Deduct to Correct—			
	London—			
12/2	Snowdon, Sons and Co.	Lub.	300	Riga
	Newport—			
15/1	M. Jones and Co.	Lub. Gr.	720	Antwerp
	Add to Correct—			
Mar.	Grangemouth—			
5	J. Currie and Co.	Lub.	2,120	Hamburg
5	W. Graham-Yooll and Co.	Lamp	4,000	,,
	Leith—			
7	W. Graham-Yooll and Co.	,,	2,180	,,
7	W. Gibson and Sons	Lub.	6,250	Antwerp

The Petroleum Review.

By PAUL DVORKOVITZ.

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THE PETROLEUM REVIEW:

The ANNUAL SUBSCRIPTION for both English and Foreign readers is 26s., including Postage. Single Copies may be had at the offices at 1s.

The Editor would esteem it a favour if readers, when communicating with the various firms advertising in our pages, would mention the "Review."

Contributions upon items of interest are always welcomed from subscribers, but in each case these should be accompanied with the name and address of the sender, not necessarily for publication.

Editorial Notes.

Maikop and the Oil Boom. Although we have frequently drawn attention to the fact that English capital figures in the most insignificant light among the large operating concerns in the majority of the great petroleum producing countries of the world, there is to be a most pronounced exception in regard to that new and exceedingly prolific district in South Russia—Maikop—for up to the present time about a dozen English concerns have entered the field, and we know of almost a similar number just undergoing the interesting process of formation. Maikop is, without a doubt, quite a favourite in the eyes of the British investor to-day, and so far as present appearances go it is likely to remain so for a long time. The geographical situation of the field, the comparatively cheap cost of operating, and the fact that the quality of the oil received even from depths of only a few hundred feet is excellent—all these circumstances have tended to lift it ahead of all other petroleum producing regions in the eyes of English investors. As to the future of the field, it would be idle for us to prophesy, but the great combination of favourable circumstances met with in Maikop cannot find a parallel in any other petroleum producing country, and this in itself should count for a great deal. On our part we wish all these new enterprises in Maikop God-speed in their labours.

The Commonwealth Oil Corporation. The long report which appears elsewhere in our present issue of last week's meeting of the shareholders of the Commonwealth Oil Corporation, Ltd., contains such information which should prove welcome reading for those who a few years ago pinned their faith to the success which was in store for this influential Corporation and the Commonwealth of New South Wales. For the past year or so we admit that the company has had its troubles, but the greatest of these has been the fact that so many of the shareholders shewed signs of losing faith in the Corporation. In the face of the reports of the two directors who have recently returned from a visit to the properties, we cannot see that any shareholder need be pessimistic as to what is in store. The policy should be to patiently await events. Too much optimism we know brings nought but disappointment, and the exceedingly glowing statements made to the shareholders a couple of years ago have been, without a doubt, the cause of much of the recent discontent. The Corporation has set out to accomplish great things, and these have been made the greater by reason of the extended scope of operations necessary owing to the increased stores of mineral wealth which have been opened up. It is given to few enterprises to find themselves the fortunate possessors of wealth they never set out to seek, yet it is this that has mainly been the cause for such disappointment on the part of the investors.

The Natural Gas of Sussex. One day last week a Review representative visited the natural gas district of Sussex, and an account which appears in this issue should considerably assist in drawing greater attention to the potentialities of the operations which have from time to time been carried out in Sussex in connection with the production of natural gas and turning it to commercial account. When one recollects the remarkable headway which has been made during recent years in the production and consumption of natural gas in the United States, one cannot but be impressed with the great future in store for natural gas in this country, once its continuous production is assured. The drilling of one small well in the States (which gave out in less than a month) was the signal of the birth of the huge natural gas industry since developed, and it may be that that pioneer natural gas well adjoining the railway station platform at Heathfield, which has been silently pouring forth its natural gas for over twelve years, is but the forerunner of a most important and highly interesting industry in Sussex.

South African Petroleum Indications. Indications of petroleum are not uncommon in the northern portion of the Karroo. The most important feature about their mode of occurrence is that the oil is invariably found in association with, and even in cavities or vesicles in dolerite intrusions; the same appears to be also the case in the Orange River Colony. This at once suggests that the oil is a secondary product, due to distillation by the dolerite, at the time of its intrusion, of coal or carbonaceous shale below the surface. In Northern Cape Colony such a source for the hydrocarbons is found in the "White Band" of the Dwyka series, for this horizon consists of very impure oil shales, the amount of carbonaceous matter in some cases rising to 12 per cent.; moreover, dolerite has very commonly been injected along these shales. Some interesting occurrences of a similar nature have been found in the

Stormberg area. For example, at Dordrecht a dolerite dyke cutting through a seam of impure coal contains minute vesicles filled with mineral oil. Again, in Barkly East oil and tarry matter are found in joints in basalt at Bulhoek (Smiling Vale), while at Mosheshis Ford small quantities of pitch occur in crevices in the agglomerate filling a large volcanic neck. The Molteno beds, containing occasional seams of coal, underlie all this area, and the existence of these small quantities of hydrocarbons is thus capable of explanation. South Africa will doubtless come in for greater attention during the present oil boom, for this is certainly warranted.

THE TIN PLATE MARKET.

Messrs. Norton, Owen & Co., of 4, Bishopsgate Street Within, London, E.C., report under date March 23rd, 1910, as follows:—

Business is seriously curtailed owing to the critical position of affairs in the Welsh coal field, as neither buyers nor sellers are disposed to operate in the present uncertain position.

Prices are nominally unchanged as under:—

IC 18¾ × 14	124 sheets	110 lbs.	13/9 per box.
IC 19¼ × 14	120 ,,	110 ,,	13/9 ,,
IC 20 × 10	225 ,,	156 ,,	19/3 ,,

F.o.b. Wales. Tin lining and iron hooping extra, as usual.

THE ADMIRALTY LIQUID FUEL DEPOTS.

It is understood that the new buildings provided for in the Navy Estimates, to afford additional storage accommodation for oil fuel for warships, will be erected on the marshes on the Medway, opposite Chatham Dockyard, the reclamation of which has been proceeding for some time.

Forty-five thousand pounds has been allotted for the buildings in the Estimates, £40,000 of which is to be spent in the current year. The construction of the depôt will be carried out by the works department of Chatham Dockyard.

THE BRITISH CONSOLIDATED OIL CORPORATION, LIMITED.

We officially learn that since this company took over its properties, more wells have been sunk, and the gross production is about 1,000 barrels per day. By the end of the year, when further wells will have been drilled, it is expected that the production will be at least 1,500 barrels per day. On this part of the property alone, the estimated profit for the year is £20,000.

In other directions drilling operations are going on, and production will commence about July next. The properties are situate in Coalinga, California. The issued capital is £90,000 debentures, and £100,000 ordinary shares. The directors of the company are:—Sir Robert Hampsom, Sir Thomas A. Salt, W. H. Peach, J. P. O'Donnell, and J. C. G. McFerran.

DEATH OF MR. S. ZUKOWSKI OF BORYSLAW.

We regret to announce the decease of Mr. Stanislaw Zukowski, the well known manager of the Galizische-Karpathen Actien Gesellschaft. Mr. Zukowski has for many years been associated with the Galician petroleum industry, being in charge of the field work at Boryslaw for his firm for several years in succession to Mr. Glugosh. He was a member of the Boryslaw Town Council, and it was while attending one of its meetings that he was taken suddenly ill, expiring in the Council chamber.

NEW ENGLISH OIL COMPANIES.

ANGLO-DUTCH PETROLEUM COMPANY, LIMITED.

Registered March 15th, by Mr. R. F. Yeo, 31-32, Cannon Street, E.C. Capital, £50,000, in £1 shares. The objects of the company are as suggested by the title. Private company. The first directors (to number not less than two nor more than seven) are to be appointed by the signatories. Qualification (except first directors), £100. Remuneration (except managing director), £100 each per annum.

AUSTRALIAN OIL COMPANY, LIMITED.

Registered on 12th March with a capital of £300,000, in £1 shares. The objects are as indicated by the title. The first directors are Lord St. Oswald, J. E. Champney, 27, Hans Place, S.W.; Mr. M. Drummond, 2, Carlton House Terrace, S.W.; Mr. R. Lawson, 34, Old Broad Street, E.C.; and Mr. E. W. Wallington, C.M.G., Keevil Manor, Trowbridge. Qualification £500. Remuneration, £150 each per annum (chairman £100 extra) and a percentage of the profits. Registered office, 34, Old Broad Street, E.C.

INTERNATIONAL MAIKOP, LIMITED.

Registered on 15th March with a capital of £83,000, divided in 320,000 ordinary shares of 5s. each, and 60,000 deferred shares of 1s. each. The objects of the company are to acquire and turn to account any concessions, claims, allotments, or rights relating to oil and naphtha bearing lands in the Caucasus, South Russia, or elsewhere. The first directors are Mr. J. F. Bergheim, Belsize Court, Belsize Park, N.W.; Mr. H. W. Carl, J.P., 31, Throgmorton Street, E.C.; and the Hon. Lionel Holland, 14, Buckingham Street, W.C. Qualification, 500 ordinary shares. Remuneration, £150 per annum (chairman £300) and a percentage of the profits. Registered office, Dashwood House, 9, New Broad Street, E.C.

MAIKOP MIDLAND OILFIELDS, LTD.

Registered 15th March, with a capital of £157,500, in 150,000 ordinary shares of £1 each and 150,000 deferred "B" shares of 1s. each. Business: Producers, manufacturers and refiners of oils and petroleum spirit, etc. First directors are Hon. G. N. de Yarburgh-Bateson, Mr. J. Eyre, Mr. W. W. Rutherford and Mr. L. A. Scott Elliott. Qualification, £1,000 shares of either class. Remuneration, £250 each per annum (chairman £350) and 10 per cent. of the net profits available for dividend after 10 per cent. is paid on the ordinary shares, divisible. Registered office, 12, 14, and 16, Bishopsgate Street Within, E.C.

[These recent company registrations are in addition to the two published upon page 174.—Ed., *P.R.*]

BAKU RUSSIAN PETROLEUM COMPANY (1909) LIMITED.

An important message has been received by the Baku Russian Petroleum Co. with reference to Plot 173 Saboontchi, which formerly was very prolific down to the stratum at 250 sagenes, and then gave out. Recently, however, on deepening one of the wells to an oil stratum at 267 sagenes (2,219 feet), never before exploited by this company, the well filled with oil and also spouted slightly a few times. The message received by the company adds that the well is expected to yield 3,000 poods of oil per day, and holds out much greater hopes for the future of this plot.

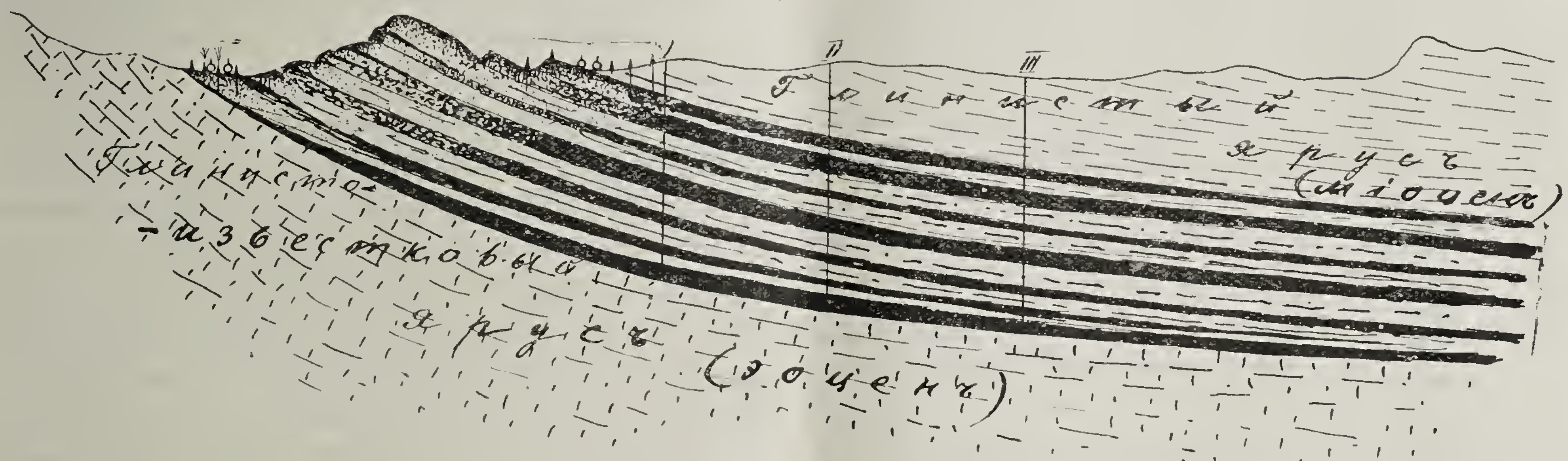
THE PETROLIFEROUS REGION OF MAIKOP.

THE PRODUCTIVITY OF THE DEPOSITS.

— By —
Mr. E. DE HAUTPICK
(Imperial Russian Engineers). . . .

In view of the great attention which the newly discovered district of Maikop, Southern Russia, is receiving, the following interesting article from the pen of Mr. E. de Hautpick (Imperial Russian Engineers) is reprinted from our excellent contemporary, *The Mining Journal*, in which several articles upon the Maikop field have recently appeared. The writer states that one may calculate the greater or less productivity of a petroleum deposit in which there is present a series of sandy beds, which may contain petroleum, lying on impermeable clay beds, or in which there is irregularity in the form of the beds which co-operate in the accumulation of petroleum in sufficient quantity to lend industrial significance to the deposit. We will inquire how far both these conditions are fulfilled in the Maikop district, and what are its unfavourable aspects.

Natural issues of petroleum, with its derivatives and associates, continue over a distance of twenty-one miles, from Asphalte Mount to the village of Shirvanskoi, in a zone related to the lower tertiary shisty scaly clays, and this constant connection of the issues of petroleum with the last-named gives good ground for assuming that this series of beds is a petroliferous mass.



The Geological Section of the Various Petroleum Strata in Central Maikop.

In this mass considerable variations take place along the stretch of clayey beds in the upper part, at the natural issues of petroleum. Near the village of Khodizhenskoi, this mass is essentially clayey, with continuous beds of asphaltic sandstone and silicious seams in places. To the south-east from the village of Khodizhenskoi, through the village of Nephthannoi, and further along in the direction of Shirvanskoi, the character of the mass abruptly changes, and at least two beds of sand and sandstone are found in it, of a thickness of at least 175 feet, with by far the most abundant show of petroleum content. Nearer to the village of Shirvanskoi the sandy beds again disappear, and the series of petroliferous beds appear in the form of a number of bituminous clays on the banks of the river Pshekhee. This is related to the narrow zone along the stretch of the upper parts of the deposit. Lower, along the pitch, the petroliferous beds are covered with the most recent formations, and therefore they are unknown by reason of the distribution of the sand amongst the clays, and the distribution of the petroleum in the permeable beds. But its bituminous nature, which is maintained with uniform constancy at the outcrops of the beds, gives good ground for the supposition that such properties continue also underneath, along the incline of the beds—*i.e.*, in the region more or less distant from the issues of petroleum. The value of the parts of the beds that pass under the newest formation is unknown, since, deep down, the permeable beds need not be those that are exposed by the outcrops. They may be more or less solid, more or less thick, and finally sandy layers may exist that do not shew at the surface. But to judge by the appearance of the sand (sandstone, silicious seams, petroleum, asphalte, and ozokerite) on the surface, the best part of the Maikop region—according to friability, thickness, and the numerous beds of the petroleum accumulation should be the central part from the village of Nephthannoi to the Shirvanskoi wells. The poorest is the eastern, without sandy beds, but the medium in point of quality is the western third. Deep boring in the northern parts of the Maikop region is producing data for a reliable judgment, both of the whole region and the classification of the various values of different parts.

And so over its whole extent, the Maikop region, if we do not count the small eastern part, exposes beds permeable by petroleum. The deposit, however, is the more favourable the more completely the petroleum reserves are secreted in the strata. And these high, solid walls of sand at the Shirvanskoi wells and Nephthannoi wells, these great deposits of asphalte on Asphalte Mount—which attract so many, and to others make it possible to organise good speculative business—properly speaking, should be rather accounted unfavourable signs in estimating the productivity of the site. These bold appearances of sand and petroleum are good as pictures. These visible evidences of a petroliferous situation act psychologically on the impressionable capitalist, inspiring him with confidence to put money into putting down boreholes. Every engineer knows by experience how difficult it is to persuade the capitalist to sink deep at that point, where the reason of the engineer sees through the ground, but where the eye of the inexperienced and timorous capitalist does not observe the visible signs of petroleum content, so dear to his heart.

But such visible signs of petroleum content to the competent engineer are evidence that they were good ventilators for the escape of gases, and for the atmospheric destruction of petroleum, thus exhausting—with the progress of time—a greater and greater area of strata, at first along the higher lines, and afterwards also along the deeper ones; and not only the ventilation acts injuriously, but there is also the washing away of the strata in that far off geological era, when the beds were forced out of their normal horizontal position. In proportion to the distance of the wells from the line of the issues of petroleum in the north, the exhaustibility of the beds (I am referring to those that have their heads at the surface) should become less. To what extent from the line of outcrop the influence of atmospheric decomposition and the washing out may be observed, can only be established by boring. The presence of more or less well-defined beds in the deposits covered at depth from the upper injurious influence is not sufficient for the valuation of the district named. The productivity is connected with the up-thrust of the fault in the formation of the petroliferous beds, but within known limits in each given case. The practice of working petroleum deposits in Russia has revealed two techtonic types—(1) plicated deposits, which are considered the best, such as at Baku and Grosny, and (2) faulted unconformable occurrences such as at Tcheleken island in the Caspian Sea, and at Tchimion in Asiatic Russia. The Maikop region belongs to neither one nor the other. The whole series of overlaying and underlaying beds present a system uniformly inclined N.N.E. But there are no long, clearly defined anticlinals, with two slopes; nor are there many large or frequent faults of a more pronounced character. In such a series of strata there can only be secondary deposition of local character, the interruption of uniformity being possible in the line of strike as also in the line of pitch; but not along the whole length, nor yet along the whole breadth of the petroliferous area. But the feeble faulting in the deposit cannot be called unfavourable as to productivity. In this respect the Maikop region approaches more to the American deposits.

Important, also, for the valuation is the degree of the pitch of the strata of the combined beds. The less the incline, the greater the width of the area of petroleum, and the more favourable the conditions for working the deposit. In this respect the Maikop region, with the exception of Asphalte Mount, is very favourable. The angle of pitch in the strata of the bed varies between the limits of 6 degrees and 25 degrees. It is least at Nephthannoi wells—6 degrees to 10 degrees; and greatest in the Khodizhenskoi wells—18 degrees to 25 degrees. Consequently the width of the petroleum-bearing zone increases in the limits of the Nephthannoi-Shirvanskoi parts of the region. The depth for reaching petroleum in proportion to the fall from the heads of the beds to the north in these parts will not increase so much as in the neighbouring parts. According to these signs, the central and eastern parts of the Maikop region approximate to the conditions of the Balakhany claims at Baku, and partly to the Saboontchi claims, also at Baku. The north-west limit of the region stands alone—namely, Asphalte Mount, with its incline in the strata of 40 to 80 degrees and more. There are even reversals in places with a much smaller width of petroleum-bearing area, and with a far greater depth of bore proportionate to the distance northwards. This part of the Maikop region is less favourable, and in it the petroleum beds are exhausted to a greater depth than in the others. At their heads a fairly wide area of asphalte is formed, exposed on the surface. It should be urged here that the pitch of the said bed at the surface is not everywhere conformable with the pitch at depth; consequently the depth where the petroleum is met to the north of Asphalte Mount, if the bed pitches more steeply at depth, will not be so great as to make boring profitless or inadmissible. There may be quite contrary signs in other parts of the region, such as an increase in the inclination, proportionate to the extension of the beds downwards. All these circumstances, which are very essential in the matter of valuing a deposit which is relatively poor in natural development, may be easily cleared up with deep boring. In the presence of such a steep incline in the greater part of the deposit, the width of the petroleum area may be two and a-half to three miles if with the extension downward the beds do not lose their petroliferous value. All the same, only boring can elucidate the northern boundary in various parts of the deposit in the petroleum bearing area. It is important, also, to know under what conditions boring can proceed in the Maikop region. The strata are firm, and, consequently, for strengthening the wells a large expenditure is not necessary, if only the water-bearing sand does not present the features of a quicksand. There are water-bearing levels in nearly all known deposits, and they have appeared also in Maikop. Regular work should be carried on (as was clearly shewn by the neighbour of Maikop—Grosny) with the appearance of the water-bearing levels, since water is the enemy of petroleum, by closing up the water currents. Modern technique knows how to struggle with the influence of water on the flow of petroleum, and on the life of the deposit; and the effect of water-bearing levels on the naphtha-bearing levels, one must not consider as a reason for condemning a deposit any more than the necessity for deep boring (in Grosny there are wells of a depth of 2,912 and 3,038 feet worked with success).

The productivity of a region is shewn by boring. Boring should be done in a sufficient number of places, and, at the same time, at those points where there is the greatest likelihood of striking the beds of the petroleum series gathered together even in small accumulations separated from the chief parts. It is as a first duty necessary to shew the deposit and the character of the local stratification, and in this respect it will be a great assistance to have the detailed geological investigation of the Maikop region, executed by Professor Bogdanovitch. With the limited development in the northern parts of the region it would be necessary to have a detailed system of prospecting pits before sinking wells. In various transverse cuttings of the deposit depending on the angle of the beds to the main wells, it is possible to make them some distance from the heads of the beds; and, in any case, one should observe some gradation in the distance of the wells to the north, although even at a depth of over 2,100 feet. From all the foregoing it is clear that it would be premature to give a categorical valuation of the Maikop region; but the geological investigation of it, confirmed by the gusher discovered in September, 1909, constrains me even now to come to the conclusion that the Maikop petroleum deposit, by reason of its indications, absolutely merits the full attention of serious firms as possessing real prospects of industrial significance.

My exposition of the productivity of this region would be incomplete if I did not make a note of those reproaches which were thrown at Maikop during the time of the theoretical discussions of the Russian specialists in petroleum geology. They said that, as in Maikop there were no anticlinals, the deposit does not merit special attention. One cannot deny that the anticlinal is the most favourable form of deposit of petroleum, guaranteeing the most satisfactory production; but one must not deny this also, that the American industry, surpassing the Russian—yielding 80 per cent. of the world's production against Russia's 20 per cent.—not having an anticlinal in its system, is based on the isoclinal system. But even in Russia, for example, the absence of anticlinals at Tchimion, in the Ferghana district, united to a mass of unfavourable exterior circumstances, does not prevent the production of over 3,000 tons a year of valuable, special class petroleum. Tcheleken, in the Caspian Sea, has no anticlinals, any more than Barakey, and both deposits are rich in petroleum.

The last word in the petroleum business belongs to the wells, and such was the case at Maikop, where a well of no more than 217 feet deep confuted the *a priori* idea acquired under certain circumstances that the Maikop deposit in its geological relations does not resemble either Baku or Grosny. But the chief point is that, according to its geographical position, it is becoming a dangerous rival to these two petroliferous regions.

PETROLEUM DEVELOPMENTS IN NEW ZEALAND.

The progress of events in connection with petroleum operations in New Zealand continues most encouraging, and everything points to the belief that a permanent supply has been struck. Writing from Taranaki a correspondent points out that in a borehole at a depth of 2,670 feet a new oil seam has been tapped, and before the mouth of the bore could be capped, and the flow diverted into the tanks, hurled oil and silt high above the 50 feet derrick, and covering everything within a radius of 100 feet. After a display of over an hour, this pressure at the mouth of the well was successfully capped, and the flow diverted into the reservoir. As near as can be judged, this vein is also producing at the rate of between 40 and 50 barrels of pure oil per 24 hours. It will probably be allowed to flow uninterruptedly for a few days, and, when opportunity offers, an attempt will be made to push the casing past it, to enable the hole to be drilled deeper. As soon as the hole has been prospected to a greater depth, the casing will be perforated opposite each vein, and the full oil capacity of the whole well will be utilised.

Pumping operations have been resumed at No. 3 bore at Taranaki, and from eight to ten barrels daily are being secured. Deeper boring will probably be commenced at this bore also shortly. It is likewise expected that No. 1 will be producing in the course of a few days.

OIL FUEL FOR THE NAVY.

In the House of Commons last week, Mr. Hugh Law, M.P., asked the First Lord of the Admiralty whether it is the intention of the Admiralty to make a greater use in future of oil fuel; has a large quantity of such fuel been recently ordered; has storage accommodation been provided at various depôts, and has the Admiralty taken steps to secure an adequate supply of oil fuel in the future from independent sources?

Mr. McKenna, in a written answer, says:—The reply to the four questions asked is in the affirmative, but it is not in the public interest to furnish details of the arrangements made or contemplated.

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NEW PETROLEUM ENTERPRISES.

THE MAIKOP OIL PROPRIETARY COMPANY, LIMITED.

This company which has recently been incorporated with a nominal capital of £252,500, divided into 250,000 ordinary shares of £1 each, and 50,000 deferred "B" shares of 1s. each, went to public issue during the present week with 125,000 of its ordinary shares.

This company has been formed for the purpose of acquiring and developing a number of plots of land in the now famous district of Maikop in Southern Russia from a total of 103 plots offered to the company by Dr. Paul Dvorkovitz, the well-known petroleum expert, whose report upon the Maikop field accompanied the company's prospectus.

In his report upon the various claims offered to the company, Dr. Dvorkovitz states that the whole of them are situated upon the well-defined anticline, and are interspersed amongst those plots acquired by the Anglo-Maikop Corporation, Ltd., and the Black Sea Oilfields, Ltd. They are also advantageously situated on account of the fact that at the north, west and south-western points wells have been bored which have been proved highly successful producers. Throughout the whole of the claims several visible and extensive outcrops of petroleum exist, and at these places the oil strata is shewn to be from 50 to 200 feet thick. Dr. Dvorkovitz recalls the fact that the well-known geologist—Mr. Windt—states there are no less than seven oil producing strata in the field, the first and second being encountered at depths ranging from 200 to 300 feet respectively, but in some cases even less, and concludes by remarking that by judiciously selecting the plots to be acquired and those upon which to commence boring, he has no hesitation in stating that the results achieved will be exceedingly remunerative.

The new company has the distinct advantage of possessing a particularly strong directorate, the members of the board being Mr. Richard Barnett, 9, New Broad Street, E.C. (director of the Baku Russian Petroleum Co., Ltd.), Mr. F. S. E. Drury, 50, Pont Street, W. (chairman of Messrs. Peek Bros. and Winch, Ltd.), Mr. Allen Paull, Mount Hall, Reigate (chairman of the Egyptian Oil Trust, Ltd.), Mr. Alexander Stewart, 522/5, Salisbury House, E.C. (director of the British Broken Hill Proprietary, Ltd.), and Dr. Paul Dvorkovitz, 45, St. Mary Axe, E.C. (managing director).

The company has been fortunate enough to secure the services as managing director and technical adviser, of Dr. Paul Dvorkovitz, the well-known expert, who has been associated with the oil fields in the Caucasus since the year 1879, and has been specially identified with the Maikop since the district first came into prominence, and he has proceeded to Maikop for the purpose of taking up a selection from the various plots under offer. Out of each plot selected the company will be entitled to take up about 27 acres for oil-boring purposes. While the company will from the proceeds of this week's issue have the means of acquiring about 50 plots, it is not the intention of the directors to take up more of these than the managing director shall recommend, and the company, not being committed by preliminary contracts or otherwise to the purchase of any particular plots, will be free to choose those regarded by their expert adviser as most avourably situated for exploitation.

THE ORAN OIL COMPANY, LIMITED.

Another important issue which has been made during the present week is that of the Oran Oil Company Ltd., which has been formed with a capital of £175,000 in £1 shares to exploit the Ain-Zeft oil field in the Department of Oran, Algeria.

Towards the end of last year, we published in the Review (page 337) an illustrated article dealing with the developments in the Ain-Zeft field, and, therefore, our readers will be somewhat familiar with the region in Algeria which the new company is to exploit.

The concession acquired by the Oran Oil Co. is held directly and in perpetuity from the French Government. It is, indeed, the only oil concession granted in the Colonial possessions of France. The importance of that practical monopoly, for the time being, is emphasised by the fact that, while the company will be protected by the Colonial duties from competition in Algeria, its products will enter France duty free, whereas foreign petroleum and by-products are handicapped by heavy imposts. Those imposts, from which the Oran Oil Co. is exempt, are as follow (expressed in sterling values):—Crude oil, £3 11s. 3d. per ton; refined oil, £4 19s.; vaseline, £11 1s. 8d; and paraffin, £11 17s. 6d.

Thus greatly favoured by the fiscal policy of France, the company seems to be in an unassailable position with regard to the sale of its products; indeed, it has so good a market in Algeria that its exports, even to France, may well be a secondary consideration. The existing demand for oil in Algeria is largely in excess of the company's estimated production of 4,500 tons per annum, as given in the prospectus.

The oil field held under the concession acquired by the company comprises 467 acres, and is 15 miles distant by road from St. Aimé (situated on the Algiers-Oran main line), where the prior French company has erected a small refinery, now in operation. This refinery is connected by rail with the principal seaports and consuming centres in Algeria. At present the oil is conveyed from the wells to the refinery in carts, but a new road now in process of construction will be available for motor traction at an early date. If necessary, a pipe line can be laid at moderate cost. Thus the value of the property has been proved by actual operation for years, and experts of high standing testify that the field well warrants development on a scale and in a manner unattempted by the relatively small French company known as the Société Anonyme des Mines de Pétrole d'Ain-Zeft.

Hitherto the field has been exploited on a very modest scale, and in primitive fashion. Indeed, of the eight wells sunk, in addition to the original prospecting borings (in all of which oil was struck), practically only two are being pumped at the present time, and even these are said to be not worked to their full capacity. Of the two wells actually being pumped at present, one has been worked for years, and, operated by primitive methods, it has yielded as much as 40 barrels per day. The other well in operation has yielded as much as 33 barrels per day produced by pump.

Several experts have reported upon the properties acquired, and in all cases the reports are distinctly favourable. Writing as recently as last November, Mr. M. J. Stephan points out that though past work has not been carried out in a scientific manner, and in spite of the fact that there has been a want of judicious expenditure, the work already accomplished proves that all the wells sunk have passed through rich deposits of oil, and have produced over a thousand tons of petroleum.

Lieut.-Col. English, one of the directors of the European Petroleum Co., Ltd., is a director of this company, and he has recently visited the fields, having expressed himself as well satisfied with the immediate and future prospects of the field. The other directors of the company are Sir Arundel T. Arundel, K.C.S.I. (Chairman), Mr. A. A. Orme, Mr. John G. Raphael, and Mr. John Sinclair.

EARLY WASTE IN THE AMERICAN PETROLEUM INDUSTRY.

An Interesting Article from "Mines and Minerals."

The sight of a few thousand dollars in molten gold running to waste upon the surface of some river, if such a sight were possible, would set the financial world into a righteous frenzy against the wanton loss; yet practically that very spectacle has confronted the older residents of North-western Pennsylvania more than a score of times within the last 50 years. Nor is the commercial loss any less because these deluges have appeared in various hues of green and amber, instead of yellow.

Just 50 years ago Colonel Drake punched a 70-foot hole into the rocks near Titusville, Pa., and made the earth gush forth undreamed wealth, and the countryside about to blossom into mushroom towns. Since then other people have been punching the rocks around there full of holes to a depth ranging from a few hundred feet to almost as many thousands, with varying results. But the purpose served has been the same, when it has been served. If it was not, they punched more holes.

The Colonel Drake Well To-Day.

Instead of the barrels of oil that Drake obtained from his little experiment, he probably expected to find quarts; still Nature happened to be conservative with her surprises at the time, and the capacity of his 70-foot underground tube was only mildly taxed; it never overflowed. The next few ventures were with similar results; then Nature pulled out her little joker in the shape of the Fountain well, and the whole neighbourhood was deluged. Drillers had already come to look for something big in this territory and to feel disappointed if they did not get it. They got it, in this well, a great deal more of it than they were looking for and there was no occasion for any of them to feel disappointed. A column of oil shot out through the top of the derrick high above the tops of the surrounding trees. Not even oil-field enthusiasm had prompted the erection of storage tanks in that direction and a few hundred barrels of oil fell back to earth unclaimed, before it could be connected up with a more useful destiny. By the time the Sherman well, with its 1,500-barrel daily output, and a few others, had been tapped, it began to look as though the entire countryside would become so thoroughly greased that even the hardest rainstorms would no longer be able to penetrate its pores.

At this stage in oil-field history it would have been possible for some enterprising man, who lacked sufficient capital or credit to put down wells of his own, to have attained for himself a greater supply of oil than any producer in the field by the simple process of storing all that other oil men wasted. Teamsters, waiting for their load of barrels, often waded ankle deep in the wasting fluid and the streams in that vicinity were soon coated with a greasy layer or with a far more terrible jacket of fire. There was no monopoly of pipe lines in those days, because there were no pipe lines. Oil had to be boated to the market over the exasperating shallows of the Allegheny River or carted through the generous depths of Venango county roads. The spicy little outbursts of Nature, when she happened to belch a few hundred barrels of wealth into mid-air, took the easiest route of all to final disposal, though it was one that never became really popular among producers. Just to prove that these first fountains of the air had not been seriously intended, the genie of the field in 1862 put a real 2,000-barrel sprinter over the plate; and then, as though to convince the world that even this was only a sample copy of what he could do, he handed out another, increased by a thousand barrels, within the following 90 days. Such producers were not even indexed in man's wildest dream book and the tanks to receive the output were still growing in the forest, but the river was as handy as ever, and a continuous stream of more than 5,000 barrels did its best, every day for many months, to drown the original fluid of the channel out of circulation. It really did more. It deluged the market and sent the price of oil from a few dollars to about as many cents per barrel. Oil was several times less valuable than the wood stock required to store it and not much more so than the water it was attempting to displace. Still the mania for finding things underground continued and, so great was the excess of supply over the demand in 1862, that fully one-half of the year's crop, some 1,500,000 barrels, was allowed to drain away without ever being inside a barrel or tank. Then the war put a timely semicolon upon the oil-field activities and gave the demand an opportunity to restore the disturbed balance of trade.

After this, the loss was more a matter of accident than of wanton waste. Tanks went up more nearly in time with the wells that went down, while prices fluctuated between the two; still a good many unexpected gushers arose to bigger occasions than the oil men did, and the old garbage carrier of the Venango county valleys had frequently to work overtime removing the residue.

There was one other outlet for the production besides the legitimate market; an extravagant one, perhaps, but very effective and easily applied—fire. Often Nature, after having loaded up the neighbourhood with the excess, herself applied as a remedy the electric spark, which she made unfailing. A single flash was enough to turn a 35,000-barrel tank in an instant to a column of black smoke under which boiled and seethed a roaring furnace that frequently swelled up over the top of the tank and poured a fiery torrent down the hillside, carrying death with it and spreading out destruction behind. If the tank did not burst under the awful strain, the people living in that vicinity could count themselves fortunate. As recently as 1892 a burning tank of oil poured over Oil Creek (then in the midst of a tremendous freshet) and burned a large portion of Titusville, Pa., already submerged, down to the water's edge.

To-day these sources of economic crime are pretty well controlled. The low metal tanks are seldom struck, and waiting pipe-lines not only hasten the removal of this dangerously inflammable material from the vicinity of the producing wells, but convey it through its long metal tunnel, safely underground. The dangers from escaping gas are better understood and open fires are no longer permitted around a drilling well that is nearing completion. More sensibly adequate provisions are made in advance for storing the expected oil, and other tanks can be quickly built for the unexpected when they are needed. Besides, the nature of the older fields is so well known that drillers can predict with reasonable accuracy where flowing or gushing wells are likely to be encountered. In the newer fields an occasional surprise is met; notably the great Copley well in West Virginia that, a few years ago, burst forth with a daily stream of 7,000 barrels and managed to keep control of the situation for several days. Usually though, the waste is of short duration if, indeed, any occurs at all; and the industrial loss is no more than is constantly to be seen in our growing cities as they steadily advance their line of destructive reconstruction. Still the fact remains that this, one of the youngest of our commercial prodigals, has brought along with the princely fortunes he has seen fit to distribute, sufficient waste in the first five years of his life to more than equal the entire wealth his first three years was able to produce; that this great waste was not only preventable but absolute, doing no man or class of men a dollar's worth of good; that it was a permanent loss to the world of a great natural product which can never be recovered in useful form.

Fig. 1 shews the first oil well as it appeared in 1864. This famous "Old Drake Well," was drilled in 1859 and the derrick used in drilling it was burned down a month or two later. It was never photographed. A new derrick was erected at once, in the early winter of that year, and this has passed into pictorial history as the original derrick of the old Drake well. The accompanying illustration, photographed from an old tintype made in 1864, shews it at its best. The derrick was removed in 1876 to Philadelphia, where it was on exhibition at the Centennial. It was finally destroyed by fire.

Fig. 2 shews the same well as it appeared in 1900. It is situated on the flats a mile or two below Titusville, Pa., and the surroundings are strikingly desolate. The well still contains some oil and an attempt was made a few years ago to clean it out and rejuvenate it, but it was not successful. The present owner of the farm where it is located recently donated five acres of the ground surrounding it to the Daughters of the American Revolution who are now collecting funds for the erection of a $100,000 monument upon the old well site.

The illustration on the preceding page is from a photograph taken by Mr. John A. Mather, a retired photographer of Titusville, Pa., now 82 years old, and himself an interesting representative of old oil days. Mr. Mather has the distinction of having negatives, some 2,000 in all, illustrating all the important scenes of the old fields from their beginning, and the only set in existence.

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Paraffin: Its Properties and Manufacture.

By Mr. F. BRETH.

The bulk of paraffin wax is used in the manufacture of paraffin and composite candles. . Naturally, therefore, in testing paraffin we have first of all to determine how far its qualities make it good for the purpose of candle making. A good candle must be perfectly white (when it is not purposely coloured), must not feel fat by touch, must not have any greyish or yellowish tint, and must not bend while in use. It is, of course, understood that for the making of faultlessly white candles the paraffin itself must be faultlessly white, and as regards the colour of the product, the paraffin industry has lately made very great progress following the general advancement in the refining methods.

In Austria the refining of paraffin wax is performed by means of sulphuric acid and discolouring powder. The neutralising agents in general use before, such as solutions of caustic soda, soda and waterglass, are now seldom used, as now the acid is almost completely eliminated by simply settling, while the eventually remaining acid reaction is being neutralised by the alkaline nature of the alluminium-magnesium-hydrosilicate in use. The obtaining of the white colour does not entirely depend on the quantity of sulphuric acid used, so that it cannot be said that a paraffin not perfectly white was not sufficiently acidulated. The colour depends rather on a certain degree of carefulness in the operation of refining itself. A carefully treated paraffin demands the use of little acid; and, when on the contrary any mistake has been made in the refining it cannot be made good by the use of more acid. The precautions to be strictly followed in the manufacture do not concern us here, and besides, are well known by the paraffin manufacturers. One thing only in this regard is to be mentioned, namely, that the presence of even small quantities of water is a great hindrance, and that paraffin refining demands skill and experience. And this is the reason why some refineries use double, and some even five times the quantity of acid as other refineries, and usually a refinery shewing the smallest quantities of acid used produces the best paraffin.

The method of the Austrian paraffin manufacturers is, in short, the following:—The sweated product as it is obtained in the sweating chambers is heated to a high temperature; the dirt and water which settle at the bottom are withdrawn, and the pure material is pumped into the agitators (cylindrical vessels with cones), in which the 70° C. warm paraffin is being treated by means of compressed air with concentrated sulphuric acid at 66° B. The acid solves the foreign constituents of the paraffin and colours itself in black. After the reaction is finished, the agitating is stopped and the sulphuric acid settling in the lower part of the cone is withdrawn.

The treated paraffin is left in the agitator for a long time, so that most of the acid should settle, and then it is led into a second agitator, where it is again heated above 100° C. and then is added with the discolouring powder, with which it is thoroughly mixed by shaking, after which it passes through a filter press retaining the powder. The pure white paraffin flowing from the press is collected in forms in which it solidifies.

As discolouring power there was formerly in general use potassium ferrocyanide as it is obtained in raw state from blood, but at the present time it is almost everywhere replaced by the hydrosilicate, and for obvious reasons: the ferrocyanide, or as it is usually called in the paraffin industry, the "black powder," is much dearer than the "white powder" (hydrosilicate), and besides this the black powder often contains considerable quantities of sulphides which easily dissolve in paraffin, so that usually paraffin wax refined by means of a black powder blackens copper whenever it comes in contact with it.

The advantages of the black powder consisted in that it could be used without calcination and that even with little care it gave good results, and that is why it is still used here and there. But as there are now sold silicates ready for use without calcination even small factories which cannot afford the construction of a calcination apparatus exclusively use hydrosilicates so that black powder is now in the Austrian industry a matter of the past.

The discolouring powder is being added in various quantities according to the quality of the powder, the degree of acidity, and other circumstances. Usually before starting the discoloration in bulk a laboratory experiment is made which determines the quantity of powder to be applied. Naturally the more powder, the better is the colour of the paraffin. In a rationally conducted refinery the tendency is to use as little powder as possible, not only because of economy in the latter, but for the principal reason that the powder always retains larger or smaller quantities of paraffin, and in order not to waste this dear product it has to be extracted from the powder with benzine; besides this extraction being an expensive process, the whole of the retained paraffin can never be completely extracted, and thus precious material is being lost.

(To be continued.)

CLASSIFIED IMPORTS INTO UNITED KINGDOM UP TO MARCH 19th, 1910.

IN GALLONS.

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Country.	Illuminating.		Lubricating.		Residuals.		Gas Oil. (Solar)		Benzine.		Fuel Oil.		Other Descriptions.		Totals.	
	Since Mar. 7.	From Jan. 1.	Since Mar. 7.	From Jan. 1.	Since Mar. 7.	From Jan. 1.	Since Mar. 7.	From Jan. 1.	Since Mar. 7.	From Jan. 1.	Since Mar. 7.	From Jan. 1.	Since Mar. 7.	From Jan. 1.	Since Mar. 7.	From Jan. 1.
Austria ...	—	—	10.400	39,900	—	—	—	—	—	—	—	—	—	—	10,400	39,900
Belgium ...	—	—	20,470	111,420	—	—	—	—	—	—	—	—	—	1,800	20,470	113,220
Canada ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dutch India.	—	—	—	—	—	—	—	—	—	3,833,870	—	—	—	—	—	3,833,870
Germany ...	39 180	221,060	54.240	254,550	—	2,000	—	—	—	—	—	4,840	—	3,200	93,420	485,650
Holland ...	—	530	290	1,120	—	—	—	—	10,050	420,150	—	—	50,240	54.710	60,580	476,510
Roumania ...	—	2,704,070	—	—	—	134,750	—	—	—	950,400	—	—	—	—	—	3,789,220
Russia ...	—	1.878,360	2 470	1,610,060	—	—	—	—	—	7,160	—	—	—	240	2,470	3,495,820
U.S.A. ...	3,542,880	15.953,180	1,700,130	9,605,840	—	44,500	1,093,130	13,749,820	—	2,314,400	—	1,737,200	—	85,190	6,336,140	43,490,130
Other Countries	—	480,270	900	8,360	..	—	—	—	—	194,970	100	100	—	1,600	1,000	685,300
	3,582,060	21,237,470	1,788,900	11,631,250	—	181,250	1,093,130	13,749,820	10,050	7,720,950	100	1,742,140	50,240	146,740	6,524,480	56,409,620

NOTES FROM THE OIL FIELDS.

AMERICAN.

Texas and Louisiana Stocks.—To-day there are approximately 5,000,000 barrels of crude oil in stock in the Texas and Louisiana fields, the majority of which is held by the pipe line companies.

Hoskins Mound, Texas.—The Mound Oil Co., operating at Hoskins Mound, in Brazoria county, Texas, has brought in a well which is flowing at the rate of 2,000 barrels daily. The well is less than 700 feet deep.

An Important Contract.—It is reported that the Gulf Pipe Line Co. has contracted to supply the Gulf, Colorado and Santa Fe railroad with a two years' supply of liquid fuel. The maximum quantity specified is almost 4,000,000 barrels.

Pipe Line Rights.—A bill is now before the United States Senate, which has for its object the granting of rights of way over the public domain in the State of Arkansas for oil and gas pipe lines. It is believed that the bill will become law.

American February Exports.—According to a preliminary statement, the value of the petroleum products exported from America during February reached $6,972,644, as compared with $6,335,891 for the corresponding month of last year.

Gulf Coast Production.—The production of the Gulf Coast is now estimated at nearly 22,000 barrels per day. This is an increase over recent statistics, but is wholly accounted for by the well at Hoskins Mound, referred to elsewhere in this issue.

A Good Test.—The Producers Oil Co. is sinking a well at Naples in Morris county, Texas, in order to prove the producing capacity of the deep sands. The company intend that the well shall go down to a depth of 3,000 feet. So far, it is down 2,300 feet, but the oil showing is not very encouraging.

Gulf Refining Company's Shipments for 1909.—The Gulf Refining Co.'s shipments of oil products during 1909 in all amounted to 6,175,000 barrels, as compared with 4,340,000 barrels for 1908. The largest shipments made during any month were made in December, when the total reached 795,000 barrels.

A Large Gas District.—The Cleveland district, says a writer in Oklahoma, gives every promise of becoming a very large natural gas producing district. Recently the Minnetonka Oil Co. drilled a well, which is said to be good for 20,000,000 cubic feet per day. Operations are now active throughout the district.

Californian Statistics.—The total crude oil production in the Californian oil fields during January was 5,265,000 barrels, which is slightly below the record established in the last month of 1909. The month's surplus over consumption was 85,000 barrels, as against 60,000 in December, the consumption for the month being almost 100,000 barrels below that for December.

RUSSIAN.

A New Spouter.—A telegram from Baku states that on the fields of Nissenbaum a new spouter recently broke out, yielding over 300,000 poods of oil daily.

Lawsuits at Akhtirski.—For the last month 30 lawsuits have been notified to the administration of the Akhtirsk Station, covering about 2,700 dessiatines of communal land.

New Book on Maikop.—The mining engineer Wirth is publishing a book on his own investigations of the Maikop district as well as those of the Geological Committee. This book represents a complete and exhaustive study of the subject, and will bring considerable help to anybody interested in Maikop.

The New Maikop Spouter.—Close to the spouter of the well No. 1 on Selivannikoff's property a new spouter in the well No. 2 is now shewing great activity. The spouting oil comes from a depth of about 40 sagenes, and, although all the holes have been stopped, still the force of the spouting oil is such that over 10,000 poods of oil daily leak through.

GALICIAN.

A New Refinery is about to be erected at Trzebinia in West Galicia. The yearly working capacity of this is estimated at 100,000 tons.

Refinery Transfer.—The refinery at Marie-Szymanberg has passed into the possession of two private persons at a price of 1,300,000 crowns (about £54,000).

Fires in Galicia.—During 1909 there were altogether 29 fires in the wells at Tustanowice, of which 10 were caused by lightning and the rest carelessness and lack of technical precautions.

Boring in Galicia.—At the beginning of 1909 there were at Tustanowice 292 wells in working and 38 in boring; at the end of the year there were 294 in working and 40 in the course of boring.

January Production in Galicia.—The production of crude oil in the Boryslaw-Tustanowice fields in January amounted to 144,000 tons.

ROUMANIAN.

The Franco-Romana has decided to establish a branch office at Ploesti.

The Petrolifera Company (capital, 7,500,000 francs) shews for the year 1909 a loss of 45,892 francs.

The Romano-Americana.—The Romano-Americana Co. has asked the Government to authorise the consolidation of its rights of property on 18 plots of an area of over 70 hectares situated at Berceni.

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Servian	6,700	Terek	5,200	Rock Light	4,100
Carpathian	6,700	Balakani	5,200	Lux	2,900
Roumanian	6,700	Oriflamme	5,200		

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LATEST QUOTATIONS OF PETROLEUM SHARES.

ENGLISH COMPANIES.

This list is restricted to companies who have paid dividends or who are producers.

Company.	Capital Paid Up.	Value of Shares.	Latest Prices.
Assam Oil	£310,000	£1	15/0-16/0
Bibi-Eybat Petroleum Co. ..	£380,000	£1	4/6-5/6
Californian Oilfields	£400,000	£1	5¾-5⅞
Commonwealth Oil Co. ..	£500,000 Pref.	£1	⅝-¾
,, ,, ..	£225,000 Def.	£1	⅝-¾
Lobitos Oilfields, Ltd. (£1) ..	£360,000	£1	33/0-34/0
Pacific Oilfields, Ltd. (£1) ..	£200,000	£1	26/6-27/6
Russian Pet. & Liquid Fuel ..	£500,000 6½% Pref.	£1	3/0-4/0
,, ,, ...	£600,000 Ord.	£1	3/0-4/0
Schibaieff Petroleum ..	£575,000 6% Pref.	£5	6/0-8/0
,, ,, ...	£575,000 Or l.	£1	1/0-2/0
Shell Transport & Trading ..	£2,300,000	£1	86/0-87/0
,, ,, ,, ..	£1,000,000 Pref.	£10	11⅜-11⅝
Spies Petroleum Company ..	£465,000	10s.	25/0-26/0

RUSSIAN COMPANIES.

Company.	Nom. Value in Roubles.	Latest Quotations.	
		Lowest Roubles.	Highest Roubles.
Baku Naphtha Co.	100	315	316
,, ,, ,, (issue of 1908) fully pd.	100	341	343
Balakhany Naphtha Co.	250	—	—
Caspian Society	1,000	4,550	4,560
Mazout Co.	250	—	—
Melikoff, A. C.	250	—	—
Mirzoeff Bros.	250	—	—
Naftalan Co.	250	—	—
Naphtha Co. "Kavkas"	250	—	50
Naphtha Trading Co., A. I. Mantacheff & Co.	250	135	136
Neft Co.	250	—	75
Nobel Bros.	5,000	11,100	11,85
,, ,, ...	250	—	598
Rops and Co. V...	250	315	316
Russian Naphtha Co.	250	—	—
Society Mazout	250	—	400
Ter-Akopoff Co.	250	—	—
Tumaieff & Co., J. G.	250	96	—
Volga-Caspian Naphtha and Trading Co	250	—	—
,, ,, ,, (Second Issue)	250	—	—

SCOTCH COMPANIES

Supplied by Messrs. Maclean and Henderson, Stirling.

Company.	Capital Paid Up.	Value of Share.	Latest Prices.
Anglo-Persian Oil Co., Ltd., 6% Part Pref. (5s paid)	£150,000	£1	6s. 0d.
Do. 5% Deb. Stock	£600,000	£100	£95 0s. 0d.
Broxburn Oil Co., Ltd., Ord. 17/- pd	£235,000	£1	£2 1s. 6d.
Do. 6% Cum. Pref. ..	£100,000	£10	£12 3s. 9d.
Burmah Oil, Ord.	£1,100,000	£1	£5 3s. 6d.
Do. Pref.	£250,000	£1	£1 7s. 6d.
Dalmeny Oil Co., Ord. (7 paid) ..	£37,800	£8 10s	£5 2s. 6d.
Do. 5% Pref. ..	£18,900	£7	£4 10s. 0d.
Oakbank Oil Co., Ltd., Ord.	£170,000	£1	£1 17s. 6d.
Do. Pref. (£1 paid)	£100,000	£1	£1 4s. 3d.
Pumpherston Min. Oil Co., Ld., Ord. (17s. paid)	£110,500	17s.	£9 2s. 6d.
Do. 6% Cum. Pref.	£100,000	£10	£13 0s. 0d.
Tarbrax Oil Co., Ltd. Ord. (£1 pd.)	£65,000	£1	£2 8s. 9d.
Do. 6% Cum. Pref.	£40,000	£1	£1 4s. 6d.
Young's Paraffin Co., Ltd., Ord. ..	£452,808	£4	£3 9s. 0d.
Do. "B" Deb...	£150,000	£100	£161 0s. 0d.

DUTCH COMPANIES.

Company.			Latest Quotations (per cent.)
Dordtsche Petroleum Industrie My.		Aand.	183
,, ,, ,, ..	Pref.	,,	200
Int. Roum. Petroleum Maatschappij		,,	24⅞
Royal Dutch Petroleum Co.		,,	461
Mœara Enim Petroleum Maatschappij ..		,,	225
Oklahoma Petroleum Co.	Pref.	,,	129
,, ,, ,, ...	Ord.	,,	75⅞
Perlak Petroleum Maatschappij		,,	173
Sumatra Palembang Petroleum Maatschappij		,,	174
Zuid Perlak Petroleum Maatschappij ..	Pref.	,,	184
Union Petroleum Co.		,,	82⅝
Bibi-Eybat Petroleum Maatschappij		,,	22⅛
Russian Petroleum and Liquid Fuel Co. ..		,,	17¼
,, ,, ,,	Pref.	,,	17½
,, ,, ,,	(6% Debs.)	,,	34½
Schibaieff Petroleum Co. (Ord.)		,,	5½
,, ,, ...	Pref.	,,	8½
Shell Transport and Trading Co. ..	Ord.	,,	295½
Tulsa Petroleum Co.		,,	90½

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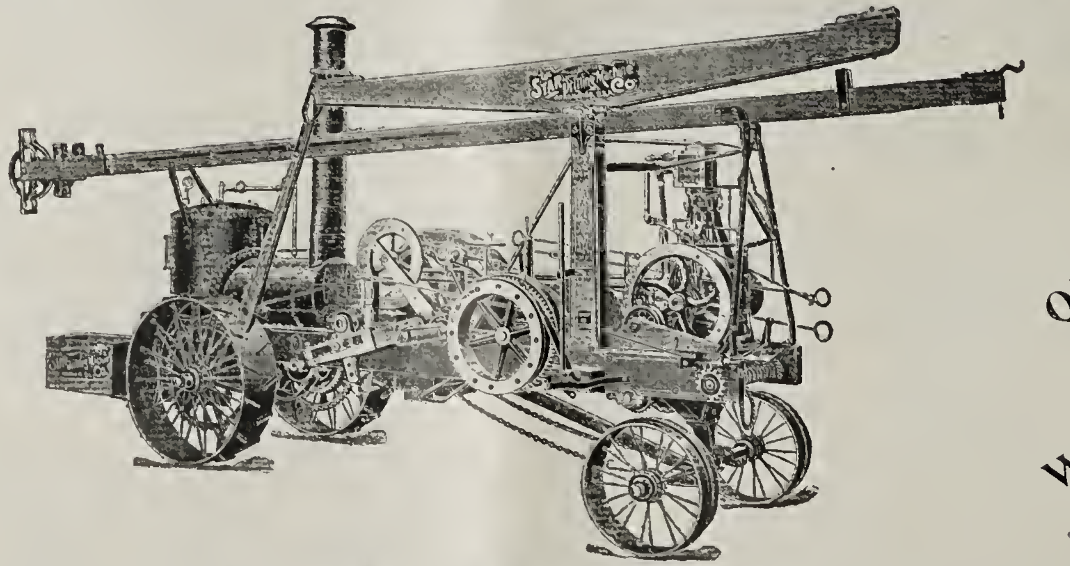

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THE
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Saturday, March 26, 1910.

THE SOLUTION OF THE LIQUID FUEL DIFFICULTY.

THE continued development of the heavy oil districts of Texas, Kansas and Indian Territory, as well as many localities in California, and the increase in the production of the heavier grades of oil, has had the effect of raising the hopes of many advocates of liquid fuel on the other side of the Atlantic, that in a short time a very important trade in liquid fuel will be carried on between America and this country.

Over and over again in our editorial columns have we traversed this subject, and in each instance we have been compelled to admit that there was after all one great obstacle to the widespread use of liquid fuel in England. By this time, everyone, we should imagine, is convinced of the great advantages which appertain to the adoption of liquid fuel, and we scarcely think there are many people who will argue that as a steam raiser, it is not immeasurably superior to its older competitor coal.

Most of the prejudices against the fuel itself, have, by the determined faith and consistent advocacy of a handful of far-seeing men, been swept away, and the hopes that Sir Marcus Samuel expressed some years ago of the dawn of the time when England's navy would go to the sea with their boilers fired by oil fuel, are now being realised. The Admiralty has gone whole-heartedly in favour of liquid fuel, and consequent upon this decision we now see the provision of large oil storage depôts upon our coasts, while not a few manufacturers are calmly viewing the claims of the new fuel in their varied aspects. There are many difficulties which still stand in the way, and to some extent bar the road of progress, but these are of an essentially arbitrary character. It is neither the chemical nor the mechanical objections which have for so long kept the general adoption of liquid fuel in the background, but it has been the economic question which has more than any other so long barred the way.

There are very few who have glanced toward America to furnish a solution for the surrounding difficulties, yet, nevertheless, the supply of oil which the Texas, Kansas, and Californian territories are capable of producing, should go a long way to lifting liquid fuel to the position it ought to occupy. It is in this direction we believe that our Admiralty would be well advised to look rather than to Scotland, which at the best can only supply a small proportion of Admiralty needs in regard to liquid fuel.

As our readers are well aware, matters even in regard to the heavy oil production in America are in what may be said to be their initial stages. Following upon the great output of the Beaumont wells a few years ago, an enormous demand was created in America itself for liquid fuel, and for a time this could not be satisfied. But as time went on, production again drew ahead of the demand, and fresh markets were sought, though it was an open question whether the supply could be maintained. In this direction, however, at the present time, all feelings can be set at rest. Kansas has come to the fore with a production which is even the marvel of the American oil men. Its vast fields—as yet only touched on the fringe by the drill—are producing such great quantities of oil that all available storage is filled to overflowing, and all efforts to alleviate the situation are proving of little avail. Some millions of dollars have already been spent in storage installations and in the laying of pipe lines, so that the production in the Kansas and Indian Territory fields might be taken care of and dispatched to a ready market; but, in spite of this, the stocks are enormously increasing, and the marketing of the oils from these mid-continental American fields becomes a matter more and more complex.

In every direction liquid fuel is used, and to-day the fastest of America's trans-continental expresses are fired by means of liquid fuel. The great hives of commence—those units in the industrial life of America—have long ago learned to recognise the economy which is brought about by the use of liquid fuel, and still the supply is far and away in excess of the demand.

What is in store for the American fields in the future we know not, but it may with confidence be assumed that for many years to come there will be almost no limit to the supplies of liquid fuel which will be available for the outside world, even when the great and continuully increasing demand at home has been fully satisfied.

In regard to geographical position, the fields of Texas, and even those of the whole of the States and California offer distinct advantages, especially recollecting the fact that the pipe line across the Isthmus of Panama is now in working order. The wonderful system of pipe line organisation which spreads itself out like fingers over the whole of the oil-producing regions of the States can now be said to possess direct communication with the Gulf of Mexico, and surely no situation could be more favourable from a European point of view.

Before Texas became an important factor in the world's supply, the freight rates alone from other producing fields to this country rendered the general use of liquid fuel in England almost out of the question, but we are now given to understand that liquid fuel from America can be landed in this country at a figure which will certainly place its claims very favourably before manufacturers. Given this, and the future of liquid fuel in a country like England, so far removed from petroleum production, is quite safe, and, with the announcement that important contracts have been secured for the Californian fuel this side of the Atlantic, we may expect to hear something in the near future not of the advantages of liquid fuel, for it has passed its experimental stages, but of its rapid advancement in England.

PRODUCTION OF ENGLISH COMPANIES IN RUSSIA.

Baku Russian Petroleum Co., Ltd.—The production for the week ended Febuary 26th was 2,252 tons; and for the week ended March 5th was 146,750 poods. These figures are exclusive of oil produced from plots leased off.

Russian Petroleum and Liquid Fuel Co., Ltd.—The production for the week ended March 12th was 140,000 poods, or 2,257 tons; and for the week ended March 19th was 144,000 poods, or 2,322 tons.

Spies Petroleum Co., Ltd.—The production for the week ended March 13th was 324,715 poods, or about 5,237 tons. The total production for the year to March 13th was 2,756,385 poods, or about 44,458 tons. The total production for the corresponding period last year was 2,197,975 poods, or about 35,451 tons. The production for the week ended March 20th was 280,085 poods, or about 4,518 tons. The total production for the year to March 20th was 3,036,470 poods, or about 48,975 tons. The total production for the corresponding period last year was 2,447,175 poods, or about 39,471 tons. The decreased production is due to the destruction by fire of the derrick of the well No. 3 Baskakoff, which was producing 70,000 poods weekly. The derrick is now being reconstructed and baling will be resumed in about a fortnight. The well is undamaged, and the damage to the derrick is covered by insurance.

The European Petroleum Co., Ltd.—The production for the week ended March 13th was 115,715 poods, or 1,865 tons; and for the week ended March 20th was 118,224 poods, or 1,906 tons.

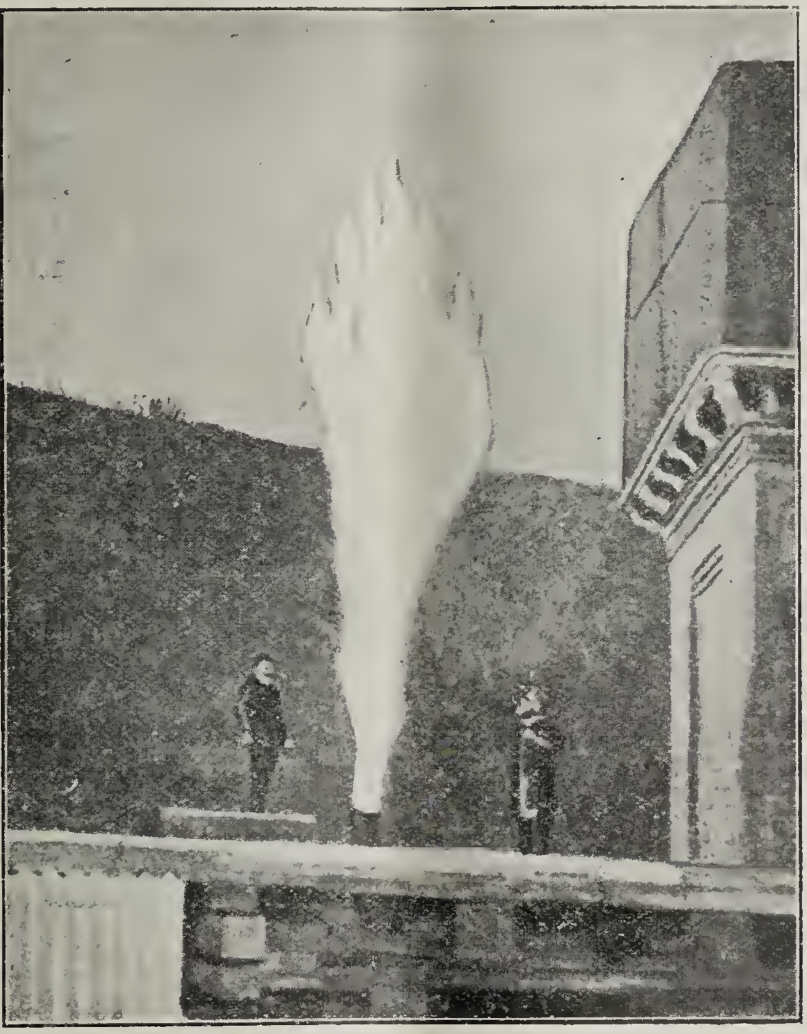
The Natural Gas Fields of Sussex.

A "REVIEW" REPRESENTATIVE INSPECTS THE DEVELOPMENTS.

The formation of the South of England Natural Gas and Petroleum Co., Ltd., and its subsequent public issue of capital a few weeks ago, has caused a considerable amount of public attention to be devoted to the natural gas district of Heathfield, Sussex, in which locality the new operating concern is to commercially develop the prolific deposits.

A few days ago a Review representative paid a visit to Heathfield in order to be in a position to place before our readers some interesting information not only concerning the developments which have taken place in the past, and of which unfortunately very little is known to the outside world, but also to briefly refer to the programme which has been mapped out for the operations of the company recently incorporated.

The history of the Heathfield natural gas developments is full of interest as well as direct concern to all associated with the petroleum industry, since natural gas discoveries and developments are always closely allied to that of petroleum production, and worked commercially, either the one or the other would be of great, nay, almost national, importance in this country. Let us, then, proceed to refer to the early history of natural gas in Sussex.



The Natural Gas Borehole at Heathfield Station.

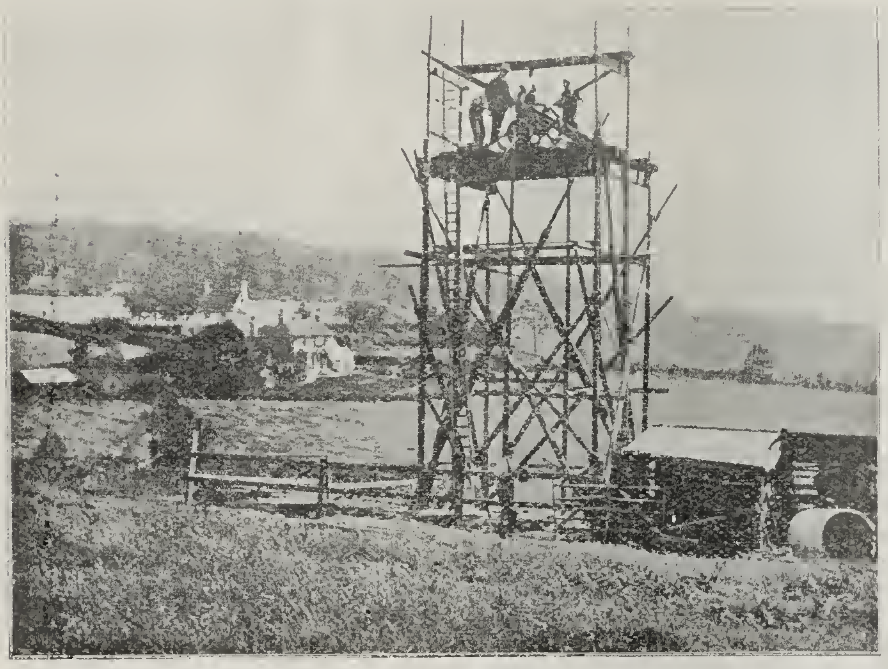
About thirty-five years ago we find that the first record was made of the discovery of natural gas in the county before mentioned, this being contained in Mr. Henry Willett's thirteenth quarterly report of the Subwealden Exploration (Netherfield) 1875. Therein we read that in making experiments of the temperature, etc., at various depths, and upon lowering a light into a boretube, an explosion occurred. Strange oscillations in the depth of the water are reported to have been noticed, which at the time were attributed partially to the discharge of inflammable gases derived possibly from the strata known as the Kimmeridge clay, and which it is contended is petroleum-bearing.

Strange as it may appear, for twenty years after this discovery the question of natural gas in Sussex received little attention, for it was only in 1895 during the boring of an artesian borehole at Heathfield, that the probability of there being a large deposit of natural gas in Sussex received substantial confirmation. The well in question was being sunk in the stable yard of the new Heathfield Hotel close to the railway station of the London, Brighton and South Coast Railway, and in the parish of Waldron, East Sussex. Here, at a depth of 230 feet, the foreman of the work noticed that the water which had been put down the borehole to assist the working of the tools was "boiling," to use his own words. As he was about to lower a candle to discover the cause, the gas arising from the bubbles caught fire and burned fiercely, the flame beine several feet in height. Subsequently the foreman attached small tubes, and at a distance of several yards from the end of these, the gas quickly ignited, so great was the pressure. But the well was being sunk in order to obtain a supply of water, and inasmuch as no plentiful supply of water was found, the borehole was abandoned, and eventually cemented.

A year later, the natural gas of Sussex was turned to profitable account under very strange circumstances. The Brighton and South Coast Railway desired to obtain a better supply of water for their locomotives, and a well was sunk at the north-eastern corner of the station by the side of the permanent way, and a very short distance from the mouth of the tunnel. When a depth of just over 300 feet had been reached, the presence of gas which had been noticed during the boring became so pronounced that work had to be abandoned for some days. Still the flow continued, and upon the application of a match, a body of flame several feet high (as seen from the old photograph here reproduced) shot into the air. With difficulty the flame was extinguished, and the boring continued to a depth of 377 feet, when, water not having been encountered, the tools were withdrawn as well as the majority of the casing. The bore was capped, and as the pressure of gas increased, arrangements were made to utilise the light for the station.

From that time to the present, the station has been consuming the natural gas, and in spite of the fact that approximately 1,000 cubic feet are used each day, the pressure is to-day greater than when the well was first bored.

In company with Mr. Wallace Heims, the engineer to the South of England Natural Gas and Petroleum Co., Ltd., the writer inspected the borehole last week, and with the aid of a match applied to a small by-pipe from the supply main fixed at the top of the bore, the great pressure of gas was amply demonstrated, the flame burning with tremendous force, and to a considerable height. Mr. Heims, who, by-the-bye, came over to this country with considerable experience of the methods adopted for the utilisation of natural gas, pointed out that owing to the pressure that has been generated during the past few years, it has become necessary to govern the supply in view of its limited use. Nearly two years ago, the Railway Hotel adjoining the station abandoned the use of the ordinary coal gas, and now regularly draws its supply from the station borehole, using the natural gas not only for the purpose of lighting the hotel, but also for heating and cooking. The writer had the opportunity of seeing the utilisation of the natural gas, and a more perfect light, or a stronger heat-giving fuel, it is scarcely possible to imagine.



Erecting a Boring Rig at Heathfield.

Quite a large number of boreholes have been sunk throughout the district for natural gas, and in many of these good pressure has been encountered, but in years past the work was carried on in a manner far from satisfactory. Some of the bores put down commenced with a shaft of six feet diameter, and in every instance, financial difficulties prevented the shafts reaching that depth at which according to the geological reports the Kimmeridge formation would be encountered. These facts have somewhat mitigated against a proper and systematic exploitation of the natural gas area in Sussex, yet the country has for miles round been geologically surveyed by both English and American geologists, who have agreed that the south of England promises to be a larger natural gas field than any known in America.

The details of the sections of the two wells at Waldron shew that the boring commenced low down in the Ash-down sands, traversed the whole of those clay beds below called the Fairlight clays, and extended into the upper beds of the Purbeck series. The division between the Fairlight clays and the Purbeck beds appeared to be fairly well marked off by a bed 5 feet in thickness, composed of blue sandy marl rock, containing bands of bituminous shale and broken fossils. This bed was followed by a series of shelly rocks which were penetrated to a depth of about 38 feet. The following marine and brackish water mollusca have been identified in the series of rock samples (at a depth of between 339 feet and 377 feet) melania, corbular oblata, cyrena, cardium, and ostrea. None of these shells, except cyrena, occur in the Fairlight clays.

It therefore seems conclusive that the gas has its origin in the Kimmeridge clay, which, throughout its vast area, smells strongly of mineral oil. Nearly every inch contains numerous fossil shells in various stages of growth. One has only to conceive of such organic deposits of great depth and extent, of their subsequent burial, of their alternate depression and upheaval through successive geological periods, and of their subjection to the internal heat of the earth, and then one may have a fair idea of the origin of the immense volumes of this gas which seek an exit through the upper crust of a thousand openings.

Prospecting for Gas and Petroleum at Heathfield.

According to a paper published in the quarterly journal of the geological society on the discovery of natural gas at Heathfield, the pressure cannot be less than 135 lbs. per square inch, and in more recent borings put down, the pressure is as great as 200 lbs. to the square inch.

With the new company actively engaged in operations in the field, everything points to the fact that in the not far distant future the Sussex natural gas deposits will become increasingly important even from a national point of view, for we understand that it is the intention of the South of England Natural Gas and Petroleum Co., Ltd., to concentrate their efforts for the time being upon one deep bore which will be drilled to a depth of at least 2,000 feet, and thus prove the assumed petroliferous formation and the Kimmeridge shales.

THE COMMONWEALTH OIL CORPORATION, LTD.

Important Reports by the Corporation's Directors upon the Property.

The adjourned fourth annual general meeting of the Commonweath Oil Corporation, Ltd., was held on Monday week at the Cannon Street Hotel, Cannon Street, London, E.C.—the Right Hon. Sir John Brunner, Bart. (chairman of the corporation), presiding.

The Assistant Secretary (Mr. E. A. Chudleigh) having read the notice convening the meeting and the report of the auditors,

The Chairman said :—As I sometimes find that a chairman will make his speech and forget to move his resolution, I start by moving, "That the directors' report and balance sheet to September 30th, 1909, as submitted, be received and adopted." I do not propose, gentlemen, to take you item by item through the figures of the accounts. You are to a man, and—if you will allow me to say so—to a lady, conversant with accounts, and if there is anything requiring explanation later on, I am quite ready to deal with any questions. You will have noticed that these accounts are made up to September 30th. Last year they were made up to June 30th. I foreshadowed this change at our last meeting. The reason that has induced us to adopt the change from June 30th to September 30th is that September is a much more convenient month for stocktaking in Australia. I have to thank publicly our auditors for having made special efforts to obtain the information they required for the three months between June and September, and for presenting to us to-day the very carefully audited accounts. There is one change, the only change in the accounts that I need call your attention to, and that is the disappearance of a revenue or profit and loss account. The board have carefully considered this matter, and they have come to the conclusion that it is hardly a dignified thing for a company of this magnitude to shew profits on a very small proportion of its business. The business, as a whole, is not at work ; the business, as a whole, is not making profits ; and we have to recommend to you the confirmation of this change in the accounts adopted by the board after very careful consideration. Our cables, weekly received, I am glad to tell you, report great activity in building—using the money that you provided for us last year. It is the one thing which the directors are now bound to devote their constant attention to—to get the works ready for making profits for you at the earliest possible date. We have, as you have already been told, been hampered in this respect by delay in the receipt of plant ordered in Australia The Australian manufacturers of plant have been unable to deliver because they could not get fuel.

Now, I do not know whether the news is confirmed in to-day's paper, but on Saturday we received, with intense pleasure, a cable message announcing to us that the coal strike in Australia was at an end, and that work would be resumed to-day. I have received a great many cuttings from newspapers making the announcement that Sir John Brunner would to-day make a favourable statement. I should be very happy to do it, but it is not my day. This day is devoted to hearing a report, first, from Sir Ernest Spencer and, secondly, from Mr. Mackay of what they have seen and heard during their examination of the company's property in Australia. Our friend, Sir Robert Lucas-Tooth, I am very sorry to say, is unable to be with us to-day, on account of a bronchial attack, but I am very glad to be able to send him a message from this room saying that what we have heard from our colleagues is a complete confirmation of what he told you gentlemen some few months ago. I send him a congratulation upon this confirmation of his report, and a message of good wishes for his early recovery. This report—or these reports, if you so please to call them—from these two gentlemen has been anxiously expected by the newspaper world and no no doubt by you, and I have seen some complaint that they have not been made known to the shareholders. The course of procedure has been this. These two gentlemen discussed with us their notes some weeks ago. They carefully prepared their reports from these notes and read them to us on Saturday last. It was therefore impossible —if it had been proper ; I think it would not have been proper—to circulate those reports before the meeting. We have preferred to treat you with great respect and submit their reports to each shareholder who did us the honour of coming to this meeting, and it is our intention to have a verbatim report prepared which will be circulated to all the shareholders. Now, gentlemen, I have great pleasure in calling upon Sir Ernest Spencer.

Sir Ernest Spencer, J.P., D.L. (deputy chairman): I will commence my remarks by seconding the adoption of the report, following the very good example of our chairman. When I last had the pleasure of meeting you, and of introducing myself to you as one of your directors, I informed you that I had satisfied myself, on the evidence on this side, that the company had a property of extraordinary value ; but then I had stipulated, before accepting a seat on the board, that I should also have the fullest, freest, and most unhampered opportunity of investigating the affairs of the company in Australia, and I then promised that, at an early date, I would visit Australia for this purpose. I have paid this visit, accompanied by my colleague, Mr. Mackay, and Mr. Sutherland, our general manager. On arrival in Sydney Mr. Mackay and I each paid separate and independent visits to the various properties, and afterwards made a joint investigation. We have made an absolutely independent investigation of every important fact and every important figure, and the results of that investigation were sent to you in a circular, which gave you the important findings of our work, namely : (1) That the corporation possesses a shale and coal property of great extent and of proved value ; (2) that the railway is well constructed and admirably adapted in a very difficult country to carry our traffic ; (3) that the works, as planned and partially erected, are properly placed, comprehensive in design, and fitted to accomplish what is intended and required ; (4) that Australia offers a good and sufficient market for the products of the corporation at fair prices ; (5) that with prudent business management the success of the corporation should be assured. Now, I propose to give you in the first instance a short description of the properties which you possess, and to amplify the conclusions which Mr. Mackay and I reached regarding your business. Your main properties lie in the Wolgan and Capertee Valleys, in the Blue Mountains of New South Wales, about 120 miles from Sydney. A high and rugged plateau, rising some 1,600 feet above the shale beds, separates the two valleys from each other.

The shale beds have been proved by workings in each valley as extending for a great distance into the plateau, and it seems certain that they continue all the way through. Tunnels and shafts on the opposite sides of each valley have also established the continuous character of the shale in these directions. Our first duty being to satisfy ourselves regarding the proved expanse of the shale, we inspected to the working face all of the tunnels or shafts of any moment, and at various points we measured the thickness of the seams. Our measurements confirm the records kept by the company. There are four principal tunnels in Capertee Valley, of which the shortest is driven some 390 feet, and shews at the working face a seam 34½ inches thick. The longest tunnel in this valley has been driven 4,362 feet, or upwards of three-quarters of a mile, and at the working face the shale was 42½ inches thick. This is probably the most magnificent body of shale in the world ; at anyrate those qualified to know have no knowledge of anything approaching it. We travelled slowly through this long tunnel, making occasional measurements, which were afterwards confirmed by the office records. The thinnest part of the seam was 41¾ inches thick and the thickest 54 inches. How much further into the mountain the seam extends no one can say with certainty, but we can vouch for the best part of one mile ; and there is every certainty in believing that a bed so uniform in thickness, lying without displacement, has a much more extended area. In the Wolgan Valley there are also four main openings—two by tunnels driven north into the plateau separating the two valleys and two by shafts driven into the south side of the Wolgan. The two tunnels have been driven 1,980 feet and 2,600 feet respectively, and the thickness of the shale seams have varied from 17 inches to 24 inches. The two shafts were opened up in 1907 to a depth of 78 feet, and tunnels driven, east, west and south. The east drive at 163 feet and the west drive at 165 feet shewed 24 inches of shale at the face, while the south drive at 211 feet shewed 25 inches. The shale is remarkably good, equal to the best at Capertee. The shale being mined at present in the Wolgan is coming from Nos. 2 and 3 shafts, which were reopened in September last on the conclusion of the strike, which lasted from February 16th to September 1st. The production from the mine is about 800 tons per week, and the thickness varies from 23 inches to 24½ inches. So much for the seams of shale which are exposed and which were capable of being visited by us.

I now come to the coal mining at Wolgan. A seam of coal 6 feet 7 inches thick, including dirt-bands, lies in the Wolgan 200 feet below the surface of the ground at the point where the two coal shafts numbered 1 and 2 have been sunk. The coal lies 60 feet below the shale, and the top portion, 2 feet 9 inches, is of exceptional quality. It is estimated that, working only the best quality and calculating it at 2 feet 4 inches thick, as at present, the yield per acre should be 3,800 tons. In a mile square this is equal to 2,452,000 tons. The coal has been found for a great distance to the east down the valley; how far it extends south below the mountain cannot be known. It is admitted that there are 320 acres "in sight," namely, 1,200,000 tons, and all easily mined. As the coal is only being mined for coke production, apart from the company's own coal requirements, it will be convenient to refer to that subject here. All testimony goes to shew that the coke produced is of the best. Although I may say that we have large and important offers from others, one customer takes the whole present production, and there will be no difficulty in finding a market for all the coke produced. At the time of our visit there were no reliable data of actual manufacturing costs, as work was only resumed in September, after the strike, but a good manufacturing profit is assured from that branch of the business, and we have recommended the completion of the scheme of coke ovens as rapidly as possible. Those under construction, when we were there, should be finished by this time, and 20 additional, making 84 in all, were expected to be finished by the end of this month. The foundations for still another 20 ovens have been excavated, and the material for building them laid down. Their construction should take about three months. Mr. Sutherland's estimate is that with 125 ovens he can produce 1,000 tons of coke per week and make a profit of £25,000 per annum. So much for the coal and coke departments of our business.

Before dealing with the main problem of oil production at Wolgan it will be convenient to deal briefly with the Torbane and Hartley Vale Works. These properties belonged to the New South Wales Shale and Oil Co., and were purchased in 1906. The criticism has been made that this purchase was a bad one, and that the selling company got the best of the bargain. We have seen members of the board of the New South Wales Co., and they do not share that view. They say that the old company was making a fair profit; and had it not been for certain financial reasons no sale at anything like the purchasing price would have been permitted by the shareholders. Improvements have been made since the purchase, and this new expenditure has also been made a subject of criticism, which we have carefully considered. The original purchase of these properties was of comparatively little importance in the scheme of the corporation's plans at Wolgan, except for three reasons: (1) The experience to be gained in handling the various products from Australian shale in advance of the completion of the Wolgan Works; (2) the early entry into a market which would thereby only require to be extended when the new output became available; (3) onr only competitor in Australia, by the purchase, removed. We have no doubt that, as the result of this purchase and the experience gained, the new works at Wolgan will be better equipped, and at less cost to the corporation. We believe some mistakes were made in the new expenditure, and that Mr. Sutherland's presence on the works at that time would have prevented these; but we are bound to say that, in the main, the expenditure incurred seems to us to be sound, and seeing that the corporation, for the reasons given, thought it prudent to purchase the New South Wales property, the improvement of the works necessarily followed, and it should be remembered that kerosene is now being made—a product impossible with the old works. The cost of producing crude oil at Torbane has also been substantially reduced since the improvements were made. We think closer attention to working economies, coupled with the benefit of recent improvements, will still further reduce the present costs. The accounts shew that a moderate profit has been made for the past financial year on the New South Wales property; but this profit must be considerably increased to warrant the investment. The life of the undertaking is limited by the number of years the shale seams may continue; but some years' work still remains, and further leases are procurable. The freehold and leasehold property at Torbane and Hartley is upwards of 3,700 acres. The main tunnel at Torbane passes through a coal seam 9 feet thick, but the coal is not of first-class quality. A coal seam of good quality is known to exist at Hartley Vale.

Now I come to the Wolgan Works. We gave much thoughtful consideration to the various questions which bear upon the whole scope and plan of the Wolgan Works. These works are the central feature of the whole undertaking. We are agreed that the works are properly placed in the Wolgan Valley. When the railway was built into Wolgan—and rightly so, in our opinion—the place for the works was thereby fixed, and to carry the railway working under the usual conditions by a tunnel through the plateau between the Wolgan and Capertee Valleys is not to be seriously thought of. Our opinion of the details of the works is, of course, a non-expert one; but we satisfied ourselves that the plan under which the works are under construction had received the fullest consideration by Mr. Sutherland and his chief assistants. It is the last, and we think the most perfect, of a series of plans intended to meet in the best way all the requirements of an up-to-date refinery. As far as possible advantage has been taken of the law of gravity in the arrangement of the process. Acting upon the board's instructions, we sanctioned the completion of the works, but only after we were satisfied regarding Mr. Sutherland's plans and estimates. We feel, however, that some further provisions should be made for the building of more workmen's dwellings. A large proportion of the workers are living in dwellings of a primitive kind. We have had before us a criticism of wasteful expenditure directed from home against the corporation and Mr. Sutherland, and we found much criticism also in Sydney; so it may be convenient to deal with it here. The criticism that a certain amount of money has been spent unnecessarily in shale tunnelling is true to an extent. But we must not be held to imply that in our opinion most of the money so spent is wasted. Some of it has been; but probably not more than might have been expected in the exploring and proving of so vast a field in a difficult country—a place, gentlemen, which I believe is supposed to be the original of the "Terrible Hollow," which many of you may be familiar with if you have read Rolf Boldrewood's story called "Robbery Under Arms." Of the rest, its value will return hereafter with the development of the property. Any specific criticism which we have seen upon the money spent on the site of the works, and the erections made and being made, seem to us to have been made without proper knowledge. The works are solid, and promise to be of a permanent and reliable character, equipped with every appliance which the best experience can furnish. We saw no waste, and we found our officials alive to the necessity for a stringent economy in all expenditure. Another item of expenditure which gave rise to unfavourable comment was the cost of residences for officials. The buildings under the heading of official residences number 31 separate houses, costing, in all, £9,290. They include buildings costing £30, £60, £80, £100, and they range mostly from these figures up to £400. One building cost over £500, three buildings £800, and a house being erected for the works manager about £1,200. Ladies and gentlemen, we saw no extravagance about these buildings, and we have no doubt that when the business is in full operation, more of them may be necessary. So much for the works and other erections.

I now come to the railway. This project is one which reflects, in our opinion, the greatest credit upon all concerned, both in planning and executing the works. It is a bold undertaking through a very difficult country, carried out in a spirit of thoroughness and economy. It is true the grades are steep for a few miles entering the valley, and some of the curves are narrow. It was impossible to lower the grades in so steep and rugged a country, while the curves could only be widened at enormous cost. We had a very exhaustive report prepared for us by Mr. Deane, our chief railway engineer, and late Government Engineer to the New South Wales Railways, and a gentleman of such eminence that when we were there he had just completed a survey for the new Transcontinental Railway, by which it is proposed to connect Perth with Sydney. His report, we are of opinion, after careful consideration, establishes the adequacy of the railway to carry our traffic and answers any criticism which has been directed against it. We also call shareholders' attention to the fact that Mr. T. R. Johnson, Chief Commissioner for Railways in New South Wales—and the leading authority upon railway construction and management in the country—in evidence given by him before the Parliamentary Standing Committee, singled out and recommended the corporation's railway as a model to follow in difficult mountainous country. We are satisfied that the railway is well constructed and admirably adapted, and capable, in a very difficult country, to carry our traffic. So much, gentlemen, for a description of this very important part of your property. That we possess a great property nobody can call in question who has visited it. It is our misfortune that so few people have gone to see it. The people of Sydney are only 120 miles away, but, as a rule, they are not financially interested to any extent, and we met but few who had paid a visit to the Wolgan. A notable exception to these remarks is our friend and large shareholder, Sir Robert Lucas-Tooth, who although we are now claiming him as an Englishman, might be rightly described as a Sydney man. I, personally, was indebted to Sir Robert Lucas-Tooth for the very exhaustive report he made upon our property, which I was able to follow carefully, and, like the the chairman, I have great pleasure in saying that it was well founded in every way, and, in fact, I do not think that a better description of our properties could have been written by a layman.

Few Sydney people have visited our works, and those who did came away impressed with the magnitude of the enterprise in which we are engaged.

Mr. Mackay and I had an opportunity of meeting many of the public men of Australia and of discussing with them the attitude of the Commonwealth of Australia towards our undertaking. We received on every hand the friendliest reception, and I am satisfied that those responsible for the affairs of the country will see to it that this large and promising undertaking—so important to Australia's development—will receive fair treatment. But now, ladies and gentlemen, with reference to our future, the first and most important thing is to have the new works in the Wolgan completed at the earliest date. The plans passed by Mr. Mackay and myself on the spot, after many discussions with Mr. Sutherland and his staff, are being hurried forward to completion. We have the best reason to believe that the works should be in running order by the close of this year, and then I hope we shall begin to realise those profits for which the shareholders have waited so long. Mr. Sutherland is leaving again for Australia next month, and will remain there until the works are completed. This will be a great advantage, not only in hurrying forward things, but in meeting promptly and without loss of time all those minor difficulties which crop up in every large undertaking. I wish to take this opportunity of saying that we believe no one knows better than Mr. Sutherland every detail of our undertaking and no one is better fitted to make it a success, aided and assisted by the board. Besides his scientific and expert qualifications he has great energy and persistence in enforcing his views and much experience in the management of men, and we believe that his present visit will see accomplished the main works, and the undertaking embarked upon a successful and prosperous career. That, ladies and gentlemen, is the report which I have prepared upon your property, and I will now leave you in the hands of my colleague, Mr. Mackay, who will give you his views.

Mr. ALEXANDER MACKAY, J.P., said:—Sir Ernest Spencer has given you a very full and detailed account of our visit to your properties in Australia, and I shall only venture to detain you a few minutes longer in order to emphasise one or two points. A very good friend of this corporation wrote me very shortly after I returned, saying that he wished to know, without any "ifs" or "buts," just when the company was going to pay a dividend—a very interesting and proper question; but probably the writer forgot for the moment that he was addressing a Scotsman. My countrymen are not famous for wantonly indulging in prophecy. I pass by the question for the moment, but shall return to it before finishing my remarks. I propose with your permission to endeavour to sum up briefly what I regard as essential in the problem which we are engaged upon in New South Wales, and why I think we shall find a solution satisfactory to us as shareholders. If my observations may seem partly to partake of the nature of criticism, I can assure you that that springs only from the difficulty in stating a case at all without seeming to tread on someone's toes. The gentlemen who started this company were, I think, only imperfectly aware of the scope and size of the enterprise which they had embarked upon. The original properties were of moderate area and small value compared with the properties which you now control, and the original capital provided was quite inadequate for the requirements of the present property. Beginning with a comparatively small area, only partially explored, the field was extended from year to year, lease being added to lease, until you now have under your control by far the largest known shale field in the world, and not only the largest, but also the richest, for the shale in the Wolgan and Capertee Valleys yields from four to six times the quantity of oil which is produced from Scottish shales. There has been much criticism over the handling of this property, and I do not deny that a good deal of it is sound; but if we are to be fair we must make large allowances for those who accepted the pioneering of such an enterprise, large and difficult in character, 12,000 miles away. I remember one of the large shareholders in the company telling me that when he put his money into the concern he knew so little about shale that he thought it was a kind of gravel. Your first board had to work under serious disadvantages. They had to learn the elements of a rather intricate business, which is not known to many, because workable shale is known to exist only in a few places. Their original estimates of the capital required to develop the business were meagre, and became quite inadequate as the size of the property grew under their hands. We are indebted to them and to our general manager, Mr. Sutherland, for their courage in taking hold of these additional properties, which would certainly have been snapped up by others and used to our prejudice; but in the light of what has since occurred they made, I think, a mistake in not asking immediately from the shareholders the additional money required.

The original scheme contemplated as its central feature the erection in the Wolgan or Capertee Valleys of benches of retorts to convert the shale into crude oil, and along with these an up-to-date refinery, for producing from the crude oil motor spirit, kerosene, gas oils, lubricating oils, and the other products which arise out of the distilling of crude oil. The retorts and the refinery were not merely links in the chain; they were the most essential feature in the whole scheme. A sound policy dictated that whatever else might be postponed, these works should not be postponed. What was done instead? You will remember it being reported, very shortly after the company was formed, that a fine seam of coking coal had been discovered. It was a most valuable discovery, and will, I believe, in the future produce large returns. It occurred to the board that by putting some money into coke ovens and developing a coal mine along with the shale a growing income from the coke could be developed quickly, because coke ovens do not take a long time to erect, and the seam of coal to be mined was not very deep. A slice of the original capital was therefore diverted for this purpose. The next change was the purchase of the properties owned by the New South Wales Shale and Oil Co, a corporation in Sydney which carried on for many years a business which latterly was only proving moderately remunerative. This company was the only competitor in Australia in the same business. It had a good connection, made a moderate profit, and the place could be got cheap. It was a temptation to take it, and the board took it. The place was bought with all its property, leases and stocks for £42,000. There was one important advantage which probably weighed with the board in making the purchase, and that was the experience to be derived from working the New South Wales shale through an already going concern. Perhaps you will not appreciate to the full the value of the experience thus derived; but I believe that much capital will be saved and mistakes avoided in building the Wolgan works as the result of the two or three years experience which the corporation has had with the New South Wales Co.'s property.

It was foreseen that in order to get the benefit of all the experience required, extensive additions would have to be made to the New South Wales property. The bench of retorts was old-fashioned and very defective, and a new bench had to be erected. Several valuable by-products could not be produced at the refinery because it was behind the times. Accordingly, much money was called for, besides the original £42,000 purchase price, to bring the refinery into better working order, and all of the money came out of the original fund intended for quite another purpose. The third big additional expenditure was the railway. Sir Ernest Spencer has given you some idea of the rugged and difficult country in which your works are being erected. To reach the Wolgan Valley you had to build a railway 32 miles in length, through a mountainous country. In the original scheme a cheap narrow-gauge road was thought of, only to come to the edge of the bluff above the Wolgan Valley, as it was for long considered impossible, at any moderate cost, to get down to the bottom. Afterwards, however, careful surveys shewed that a standard-gauge railway could be built, and this course was resolved upon. You have now the best mountain railway, probably, in the whole of Australia—at least, so the Commissioner of Railways for New South Wales states. It is solidly built, with one very long tunnel, in rock. It has narrow curves and steep grades, of course; but it is a splendid piece of work, and reflects the highest credit upon its builders. But, of course, all this has cost money. Long before all these claims for coke ovens, the New South Wales property, and a standard railway had been satisfied, the money was exhausted for erecting retorts and refinery at Wolgan, and without the retorts and refinery, your scheme for creating a large and profitable business was of no account. Now, why do I take you through all these matters? Not for the purpose of crying over spilt milk, or of making reflections upon the board which preceded the present, but simply for the purpose of giving you fresh confidence in your property.

The failure to produce, down to the present, results which we have all been waiting for is no fault of the property. The property has never got its chance, it is bigger and richer than when we were first invited to subscribe for the shares. But we have not begun seriously to deal with it, and we cannot begin on any large scale until the Wolgan works are completed and you are converting the shale into the various products which come from a completed refinery. The first thing that your new board did last year was to take a survey of the situation, ascertain what money would be required to build and equip the retorts and refinery, and, having ascertained this figure, to call for the money on the best terms it could be got. Thereafter Sir Ernest Spencer and I were persuaded to make the visit which has been reported to you. The board resolved that, until we made our inspection and were satisfied, the money subscribed should not be expended. Sir Ernest and I did not sanction this expenditure until we had made separate and independent visits, followed by a joint inspection. We hope and believe that this expenditure will be justified by the results. Let me now take you briefly through some of the considerations which justify our good opinion and our confidence in the future. The first point is have we the raw material to work with? One does not need to be an expert to tell the thickness and extent of a seam of shale or coal, provided it is exposed. If the problem set to us had been to look at certain outcrops on the surface or to go down shafts and see a certain narrow face exposed, and from these to judge whether the area of the shale field was likely to be large or small, I should have said we were both incompetent for the purpose. But what we actually did was to travel from end to end of long tunnels into the bowels of the earth, with the shale seams exposed on each side, and from these we were able to take measurements, which we afterwards verified by the careful records kept in the office. We know absolutely the thickness of the shale seams, taken every 50 ft. or 100 ft. through two or three miles of working tunnels. You may therefore dismiss from your minds any doubts, if such there be, as to your possessing enormous beds of shale. Apart from our own observations, you have the last Government records which describe the area. Then, with reference to the richness of the shale, this is equally beyond question, as it has been verified by many chemical analyses, by many thousand tons of sales made in Europe to gas companies, and also by tests made some time ago at the works of one of the large shale companies in Scotland. We start, therefore, with our raw material all right.

The next point is labour, especially in the mining of the shale. There is no disguising the fact that we have had some unfortunate labour experiences. The report in your hands tells you that a strike amongst the miners in the Wolgan Valley persisted last year for seven months. Two years ago, on the New South Wales property at Torbane, a strike lasted for a still longer period. These experiences are discouraging, and indicate how restless mining labour has been in Australia for some time back. You are also aware that a great coal strike in New South Wales, involving many thousands of men, lasted for several months, and was only within the past forty-eight hours brought to a close. Fortunately we were not at all involved in this last strike. If such strikes were to be in the future as frequent as they have been for the last two or three years, one would adopt a very hopeless attitude towards capital investment in mining in Australia. But what Sir Ernest Spencer and I learned upon our visit leads us to believe that the relations between employers and employed will be in the future more satisfactory, as the public of Australia are determined that regulations shall be found which will prevent strikes until the causes of quarrel have first been submitted to an arbitration court. As a matter of fact, the law upon this subject was believed to be quite clear; if it is not clear we do not doubt that legislative action will remedy the defect. One interesting feature in our own experience should be stated. When the strike at Torbane was closed, two years ago, the company and its men entered into a contract which provided that for three years the wages, hours of labour, etc., were fixed, and that no dispute could lead to a strike during the currency of the contract. When the Wolgan strike took place last year some of the strikers endeavoured to get the Torbane men to come out in sympathy, but the Torbane men refused. They have worked loyally according to their agreement, and we discovered that the relations between them and the managers were very harmonious and cordial. Sir Ernest and I had an opportunity of meeting these Torbane men with their families at a holiday picnic, which took place when we were at the mine, and many of the men with whom we talked expressed satisfaction with their work, and the manner in which the company treated them. The strike which has just closed at Wolgan has been followed also by a contract, and our managers believe that the terms of the contract will be honourably observed by the men.

We were both impressed with the quality of the labour. The men are intelligent and independent. The wages they earn are, of course, high—much higher than in this country; but, as many manufacturers will confirm, high wages often mean cheap costs. There is plenty of labour to be had, and we therefore anticipate no difficulty in getting all we require, always provided that the company will do something more than it has done hitherto to extend the housing accommodation. In a mountain valley which only the other day was a wilderness this company is building up a large community, and the housing question, with all its attendant requisites—sanitary improvements, water supply, police, etc.—must not be lost sight of. The third point is the provision of the best and most economical works to convert your shale into marketable products. Now, the plan of these works is no haphazard affair. Mr. Sutherland has been engaged upon their consideration for the last two or three years. He has not only had the advantage of a long personal familiarity with the construction and management of such works in Scotland, but he has had the benefit of the advice of some of the best shale oil experts to be found anywhere. In addition thereto, he has had the experience of treating for two years the New South Wales shale in the retorts at Torbane and the old refinery at Hartley Vale. If all this experience and combined talent cannot produce the most perfect work of its kind, I fail to see how it could be got under any circumstances. I believe I speak for the whole board when I say that we have complete confidence that Mr. Sutherland will erect works which will accomplish all that he has ever claimed. The erection of these works is proceeding as fast as the material can be got together, and we fully expect that they will be finished by the close of the present year. Mr. Sutherland is returning to Australia next month, and it is his intention to remain there until the works are finished.

The fourth point is the staff—the trained men who take charge of departments and exercise supervision. You will appreciate how important for us is the provision of such a staff in a highly-technical business such as ours. It is therefore gratifying to know that, with the exception of one or two to be added, this staff is already in your service. They are fulfilling the duties on a smaller scale which they will be entrusted with on a larger scale when the Wolgan Works are ready. The new machine should start off more smoothly—get into its stride more quickly—when guided by familiar hands. I should like to add that you have in your service some excellent and capable men—loyal to the corporation and to those above them. Probably our visit was not without value in connecting by personal ties your board and your chief assistants.

Sir Ernest Spencer and I made it our business to see many of the public men and business men in the country, and we were assured on all hands that, with equal quality, a preference would be given by buyers for locally manufactured products. Australia is a protected country, but no duty has been placed on such products as kerosene or motor spirit, because there has been hitherto no home product to protect. What Parliament may do hereafter, when a large new industry has been created in the country, it would not be fitting or proper for any of us to anticipate. I think you will agree with me that, so long as the public policy of the country is to help local industries, this company will have, at any rate, good ground for consideration at the hands of the legislators of the country. These six points—(1) Abundant raw material, (2) plenty of efficient labour, (3) the most up-to-date works, (4) a tried staff, (5) completed transport arrangements, and (6) an adequate local market—make up the case for success with your business. A careful scrutiny of them on the spot, and much discussion and reflection upon them with the board at home, lead us all to the conclusion, which we have no hesitation in expressing, that your enterprise has the elements of a great success, and we confidently look forward to the future. And now I come back to the point raised by my correspondent: When will a dividend be paid? I think you will agree that it would be foolish for me, or for anyone, to name a date. A vast enterprise of this kind takes time to get in order, and the wisest anticipations will often be wrong. But none of us who have more or less direct oversight of the company's operations see any reason to doubt that you will begin to earn substantial profits on the completion of Wolgan works, and, with these profits earned, the question of when they will be divided will be one in which you, the shareholders, will have most to say.

In answer to a question put by Mr. Pearson as to probable profits and the company's prospects, the Chairman said that the only point not dealt with in the reports by Sir E. Spencer and Mr. Mackay was his (the chairman's) personal opinion. He was very glad to say he had the fullest and most complete confidence in his colleagues, with whom he worked with the greatest pleasure, and he invited the shareholders to join with him in according to them their full confidence. He could not pledge himself as to whether or not the profit would be equal to the anticipations of three years ago. All that he could say upon the point was that he had surrounding him a very capable body of men who were devoting their earnest attention to the company's business, and that he had faith in the corporation and would not sell a share.

The resolution was adopted, and a vote of thanks to the chairman concluded the proceedings.

Prior to the adjourned general meeting, separate meetings of the holders of preferred and deferred ordinary shares and an extraordinary meeting of the corporation were held, at which resolutions were passed providing for the division in the preferred and deferred classes of the 400,000 new £1 shares created by resolution in December last.

THE BAKU PETROLEUM INDUSTRY DURING 1909.

MORE INTERESTING DETAILS.

In our issue of February 26th we gave a brief review of the past year's operations at Baku. We are now in possession of some interesting details dealing in a general way with regard to the Baku petroleum industry during 1909.

The total production of crude oil as already stated amounted to 490,700,000 poods, shewing an increase of 24,300,000 poods as against the production of 1908. As the increase in the production is shewn not only by the five firms favoured with spouters, but by 119 firms, we have to consider it as a proof of an amelioration in the general conditions of the production in general. It should be remarked, however, that more than half of the firms shew a greater productivity in their wells.

The total of working days for the first nine months shewed an increase of about 10 per cent., as against the figures for the corresponding period of 1908. The quantity of spouted oil amounted to 18,900,000 poods, or 5·1 per cent. of the total, while in the four preceding years the percentage did not exceed 3·3 per cent. Thus, the most notable event in the Baku petroleum industry during 1909 was considerably more intensive work in its wells which before that shewed a reduced productivity.

The boring activity expressed at the beginning of the year in 9,552 feet has increased to 15,000 feet in August. Still the end result of the year is but about 160,000 feet, against 170,613 in 1908 and 183,759 feet in 1907. The number of new wells decreased, and many old wells were deepened. Generally all boring work for the last few years relates to finishing of works started before, more than to undertaking new boring. Only 135 new borings have been undertaken during the first nine months of the year, or 49 (26·6 per cent.) less than in 1908.

The production has increased at Binagadi, Surakhany and the Isle of Swiataja; at Binagadi the production amounted to 8,000,000 poods. At Surakhany the yield of white oil has decreased, while that of gas has considerably increased. The production at Swiataja amounts to 1,500,000 poods.

The number of workmen employed on the fields still continues to decrease. On the 1st of September, 1909, 27,785 workers were employed, while on the 1st of November, 1908, there were 29,808 oil field employés. The decrease on the average amounts thus to 6·1 per cent., and was especially large at Bebe-Aibat. During the same period the number of people employed in boring has fallen from 8,110 to 6.760, and only in the refining was there an increase from 3,925 people to 4,857. If we take the total of people employed on the 1st of August, 1907 and 1909, we notice a decrease of 15·7 per cent. This decrease in the number of hands has several causes, which may be classed as under:— (1) Boring by contracts is becoming more popular, involving a much more intensive working activity; (2) increase in the use of steam, electrical and inner combustion engines in works wherein previously hand labour was employed; (3) introduction of baling by means of compressed air.

Hand in hand with the reducing of the staff employed comes the decrease in the number of strikes which entirely ceased during the second half of the year, 1909. There were altogether 21 strikes during the first six months of 1909 as against 72 and 102 in the corresponding periods of 1908 and 1907 respectively. The days lost were 99,345 in 1909 as against 315,404 and 482,944 in 1908 and 1907. The losses incurred by the strikes in production amount to 4,200,000 poods in 1909 as against 10,400,000 and 20,800,000 poods during 1908 and 1907 respectively, or in percentages of the total production, 1·1 per cent. against 3·5 per cent. and 5·5 per cent.

Out of 80 refineries, 27 were working in 1909. A large refinery inactive for the last few years has been bought over by a Moscow syndicate; here work was commenced in September. The total amount of crude oil used in the refineries amounted for the nine months to 242,200,000, or 900,000 poods more than in the corresponding period of the preceding year. The quantity of distillates increased, while that of residuals decreased. Especially noticeable was the increase in the production of illuminating oils.

The exports from Batoum and Novorossisk amounted in the nine months to 31,200,000 poods, shewing an increase of 1,000,000. The estimated exports for the whole year amount to 42,000,000 poods. The exports from Batoum decreased, and those from Novorossisk increased.

There has during the last few years been a continuous increase in the use of liquid fuel, especially on the railways, whose consumption for the year 1909-10 is estimated at 12,000,000 poods. The depôts in the interior of the country now possess a stock of 300,000,000 poods.

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THE THERAPEUTIC PROPERTIES OF PETROLEUM.

Crude oil has for ages been used under many circumstances as a medicine for curing various diseases. The oil from Galicia never had any other but medicinal use. In America the first use the speculators in oil found for it was that of a universal remedy against all evils, and following the example of the Indian Senecas who used oil for greasing the skin as a protection against pain, the citizens of Illinois consumed large quantities of "rock oil" in the middle of the last century which was sold to them by a Pittsburg apothecary.

Indeed, crude petroleum is a remedy both stimulating and composing in treating ulcers, carcinoma, ringworm of the scalp, scab, etc., in which case a soap containing from 50 to 60 per cent. of petroleum is recommended. In the local treatment of diphtheria petroleum gives satisfactory results in scaling the false membranes. Taken internally petroleum is often used in Pennsylvania in diseases of the liver, and it is as well recommended as antihelmintic.

If, however, taken in large quantities petroleum can give origin to very grave disorders in the organism and soon cause death. Disorders caused by habitual inhalation of petroleum vapours by workpeople in the refineries are frequent and of a serious nature, in most cases manifested in headaches and deteriorations of the mucous membranes. A prolonged inhalation brings with hallucinations often of a pleasant nature followed by exaltation and veritable drunkenness and then by an invincible sleepiness which in its turn is followed by a period of prostration, and finally coma and death. Experiments conducted on guinea pigs submitted to inhalations of petroleum vapours have in all cases led to their death, preceded first by loss of appetite and then by a lethargic state.

THE GROSNY PETROLEUM INDUSTRY DURING 1909.

The past year shewed that the tendency of the Grosny crude oil production to increase is growing firmer every year. The total production in 1909 amounted to 57,000,000 poods, as against 52,000,000 in 1908, shewing an increase of 5,000,000 poods, or nearly 10 per cent. Although this increase is not so large as that from 1907 to 1908 (32 per cent.) it is of more importance, as it is almost entirely due to the production of baled and not spouted oil. There was namely produced by baling 51,000,000 poods, against 37,700,000 poods in 1908, shewing an increase of over 35 per cent.

Energetic boring took place throughout the year, and amounted to 11,516 sagenes, which illustrates the fact that the tendency of the production to a regular development, which is aided as well by a more and more extensive utilisation of natural gas as fuel.

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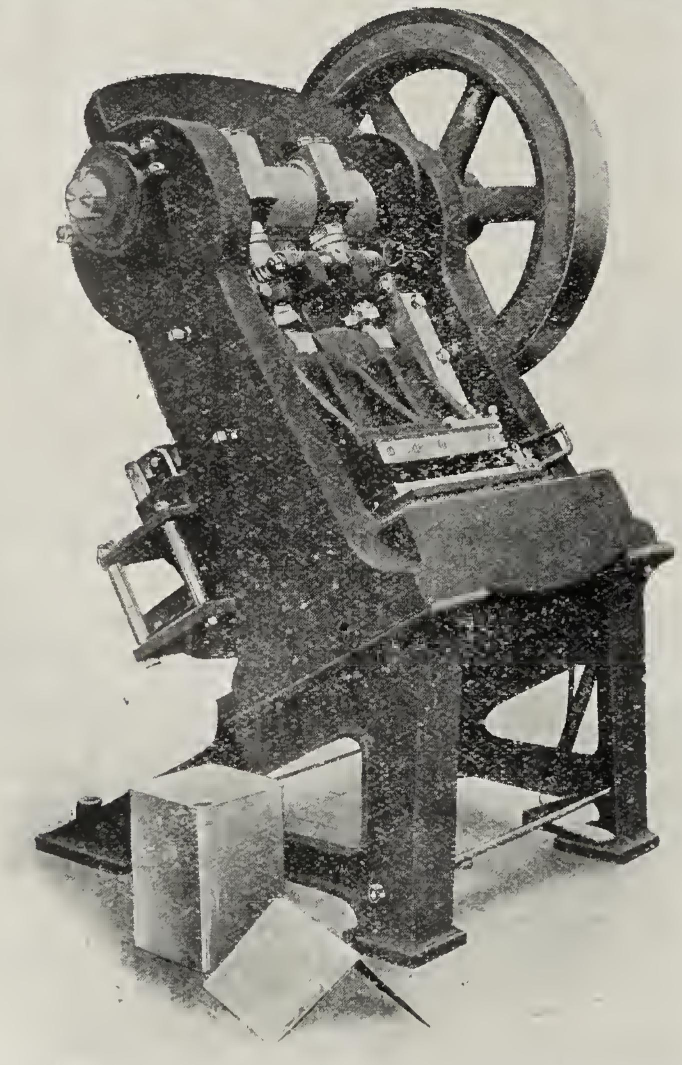

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The American Oil Market.

New York, Week ended March 12th.

A fair degree of activity characterises the Eastern petroleum fields, and in many of the districts operators are planning for the revival of drilling that usually marks the closing of winter. Some difficulty may be experienced in moving machinery and supplies to the fields for the next couple of weeks, owing to the condition of the roads. In completed work, says the *Oil, Paint and Drug Reporter*, as well as new production West Virginia stands well in the lead among the high grade fields of the Pennsylvania classification, although the new production returns are materially below those of the former week. The principal attraction in West Virginia during recent months, the Shinnston pool of Harrison county, has lately become a development of secondary interest. The older producers of exceptional capacity have shewn a decided slump, and no wells have been brought in to sustain the output of the pool at anything like its former aggregate. Late returns indicate a production in the neighbourhood of 4,000 barrels a day. Prospects for any extension of the limits of the pool are gradually fading, the only sections which have not been condemned now being to the north and northwest of developments. Marion county, which lies to the east of the Shinnston formation, has been the scene of more active leasing of late, and tests to determine the possibility of an extension of the pay sands will be undertaken as soon as field conditions offer better facilities for drilling. Roane county is in the lead in completed work in West Virginia, although the wells were of light capacity. Fairly encouraging results were experienced in Tyler county, all of the four wells brought in being in the producing column, with a daily average aggregate of 180 barrels. In Southeastern Ohio the deep sand territory of Fairfield and Perry counties commands leading attention. The former presented a well that will undoubtedly stimulate renewed interest in operations. The first twenty-four hours' production was reported as 350 barrels. The deep sand formation is now credited with a daily output of 5,000 barrels. Kentucky advices note more of an incentive to commence operations, owing to the more favourable weather conditions, but few completions were accomplished. Many of the operators have undertaken drilling of a more or less experimental character. Among the most interesting wildcat ventures in Kentucky are those in the eastern end of Lawrence county, where the proximity to the West Virginia fields offers some encouragement for a connection. Local operators were confident it would prove a consistent producer, and believed that the field would develop into one of the big districts of Texas. In Louisiana the Caddo field is attracting much speculation as to its possibilities. The well drilled there over three months ago was reported to be sustaining an output of 103 barrels an hour of 42 degree gravity oil. Advices from California indicate that the petroleum industry is on the eve of a tremendous oil boom, approaching that of 1900, when the importance of the State's resources began to be recognised.

Refined and Products.—A review of the local market for refined presents little of tangible development, general trading conditions shewing no material change from those in effect during the recent weeks. The export situation has been regarded with more than the usual interest, particularly with reference to the tariff relationship with France. Since that country has enforced the maximum schedule against American goods, the exportation of petroleum and its products from this country to France has been in abeyance. Statistics at the local customs house shew that not a single gallon has been shipped from this port since last October. France is chiefly dependent for its illuminating oil upon this country, and the total of this variety from the local port for December, 1908, and January and February, 1909, reached 7,414,494 gallons. Other exports to France for the period comprised 2,053,905 gallons of crude and 1,203 gallons of naphtha.

CLOSING QUOTATIONS.

Crude at the Wells.

The quotations for oil represented by credit balances were :—

	Week ended Mar. 12. 1909.	Week ended Mar. 12. 1910.
Pennsylvania	$1·78	$1·40
North Lima	1·04	0·84
South Lima	0·99	0·79
Indiana	0·99	0·79
Illinois, heavy, below 30 deg. ..	0·60	0 52
Kansas and Indian Ter., 30 deg. and above	0·41	0·35
Heavy	0·28	0·28
Humble, Tex.	0·53	0·75
Saratoga	0·53	0·75
Sour Lake, Tex.	0·53	0·77
Jennings, La.	0·55	0·54
Canadian Oil :—		
Petrolia	1·44	1·24
Oil Springs, less pipeage	1·51	1·31

Refined—For Export.

In cents.	Week ended Mar. 12. S.W. 110 test.	W.W. 150 test.
Barrels, cargo .. .. per gal.	7·90	@ 9·40
Philadelphia	7·90	@ 9·40
Bulk, New York	4·40	@ 5·90
Bulk, Philadelphia	4·40	@ 5·90
Cases, New York	10·30	@11·80
Cases Philadelphia	10 30	@11·80

Refined in Cases—110 Fire Test.

	Week ended Mar. 5. 1910.	Week ended Mar. 12. 1910.
3,000 to 10,000	10·45	10·45
1,000 to 3,000	10·50	10·50

Refined—Jobbing Lots.

In barrels, pkgs. included.

	Week ended Mar. 5.	Week ended Mar. 12.
130 fire test, S.W.	11¼	11¼
150 fire test, W.W.	11¾	11¾
In bulk from tanks	8½	8½

Naphtha and Gasolene.

	Week ended Mar. 5.	Week ended Mar. 12.
Naphtha, V. M. and P. deod. ..	12	12
Gasolene, 86 deg.	22¾	22¾

Pennsylvanian Oil Runs from February 24th to March 2nd were :—February 24th, 161,526* ; February 25th and 26th, 234,588* ; February 27th, 244,224* ; February 28th, 102,891 ; March 1st, 188,721 ; and March 2nd, 102,996.

The Deliveries of Pennsylvanian Oil from February 25th to March 3rd were :—February 25th, 223,774* ; February 26th and 27th, 414,625* ; February 28th, 222,208* ; March 1st, 173,847 ; March 2nd, 388,060* ; and March 3rd, 193,941.

* Includes Illinois Oil.

Clearances for the Week.

During the week ended Mar. 4th and since Jan. 1, the clearances of petroleum, in gallons, from the port of New York, were as follows : —

	Week.	Year.	1909.
Refined	15,144,270	85,737,865	85,490,260
Crude	5,500	2,281,395	6,061,930
Naphtha	448,710	12,106,190	4,741,150
Residuum ..	14,750	1,130,000	60,850

Export Statistics.

The total exports from the port of New York and from the United States have been :—

	Gallons.
From New York, week ended Mar. 4th ..	20,197,860
Total from New York, from Jan. 1st, 1910 ..	116,598,548
Same period last year	120,049,943
Decrease	3,451,395
From United States, week ended Mar. 4th	24 848,654
Total from United States, since Jan. 1st, 1910	168,446,228
Same period last year	209,968,499
Decrease	41,522,271

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The "Review" Shipping List.

March 24, 1910.

(*The following abbreviations are used in this table*:—L. Left; P. Passed; Arr. Arrived; Sp. Spoken; Tr. Trading.)
Anglo-American Co.'s vessels marked thus (□): the Anglo-Saxon Co.'s tankers thus (*): and Messrs. Lane and Macandrew's thus (†).

Vessel.	From.	For	Latest Date and Position.
ALCHYMIST	Algiers	Selzaete	P. Sagres, Mar. 12
ALICE ET ISABELLE (Fr. bq.)	—	—	In Port Rouen, Mar. 12, laid up
AMERICAN	New York ..	Antwerp	Cleared, Mar. 8
APPALACHEE □ ..	New York ..	Belfast	P. O. Hd. Kinsale, Mar. 21
APSCHERON......	Trieste......	Batoum	L. Mar. 12
ARAL..............	—	—	In Port Tyne, Mar. 8
ARAS..............	Penarth	Kustendje ..	P. Tarifa, Mar. 3
ASHTABULA □	San Francisco	Karatzu	L. Feb. 26
ASTRAKHAN......	—	—	In Port Tyne, Mar. 8
AUGUSTA	—	—	In Pt. Hamburg, Mar. 8
AUREOLE	Amsterdam .	Galveston ..	At Norfolk, Mar. 16
AZOV	Tyne	Callao	P. Beachy Head, Feb. 8
BAKU STANDARD	—	—	In Port Tyne, Mar. 8
BALAKANI†	Horta (Azores)	New Orleans & Mobile	L. Mar. 10
BATOUM	—	—	In Port Tyne, Mar. 8
BAYONNE	Batoum	New York ..	Arr. Mar. 10
BEACON LIGHT ..	Penarth	Batoum	Arr. Mar. 16
BLOOMFIELD	Emden	Manchester	Arr. Mar. 16
BORJOM	Batoum	Alexandria ..	Cld. Constant'ple, Mar. 8
BRILLIANT	Stettin......	Philadelphia	L. Tyne, Mar. 17
BRILLIANT (Br. bq.)	Bombay	Baltimore & Philadelphia	L. Jan. 5
BRITISH SUN	Sheerness ..	Tyne	Arr. Mar. 3
BROADMAYNE ...	—	—	In Port Tyne, Mar. 8
BUFFALO	New York ..	Hamburg ..	Arr. Mar. 9
BULLMOUTH*....	Singapore ..	Soesoe......	L. Mar. 18
BULYSSES*	Kobe	Karatzu	L. Mar. 17
BURGERMEISTER PETERSEN	New York ..	Lisbon......	L. Mar. 12
BUYO MARU	Shimonoseki	Noumea	L. Jan. 22
CADILLAC........	Calcutta	Natal	Arr. abt. Mar. 11
CALCUTTA (B. b.) □	Yokohama ..	San Francisco	Arr. abt. Mar. 3
CAMILLO (Late "Joyo Maru")	Barry	Port Arthur (Texas)	L. Feb. 26
CAPTAIN A. F. LUCAS	New York ..	St. John (N.B.)	L. Mar. 10
CARDIUM*........	New York ..	India	At Port Said, Mar. 20
CARPATHIAN†....	Newport Nws.	Rotterdam ..	P. Prawle Pt., Mar. 21
CAUCASIAN†	Philadelphia	Rotterdam ..	P. Dover, Mar. 22
CHARLOIS........	New York ..	Hamburg ..	L. Mar. 10
CHESAPEAKE □ ..	Batavia	New York ..	L. Mar. 9
CHESTER	Antwerp	Philadelphia	Arr. Mar. 15
CHEYENNE	New York ..	Savona	P. Sagres, Mar. 19
CITY OF EVERETT	New York ..	Port Arthur (Texas)	Off Hatteras, Feb. 15
CIUDAD DE REUS	Batoum	Barcelona ..	L. Mar. 13
CLAM*............	Sarakan	—	L. Mar. 11
CLEARFIELD	Rouen......	Tyne	Arr. Mar. 2
CONCH*..........	Tyne	New York ..	Arr. Mar. 15
CONRAD MOHR ..	Philadelphia	Bergen	L. Newcastle, Mar. 21
COWRIE*	Balekpappan	Tsingtan ..	L. Mar. 2
CUYAHOGA □	—	Port Said ..	P. Perim, prev. Mar. 19
CYMBELINE	St. Lucia ..	Campana ..	Sd. Mar. 20
CZAR NICOLAI II.	Hamburg ..	Batoum	P. Gibraltar, Mar. 10
DAGHESTAN......	Philadelphia	Genoa......	P. Del. Break., Mar. 11
DAKOTAH □	San Francisco	Moji........	At Yokohama, Mar. 9
DANUBIAN†	Amsterdam..	Port Arthur (Texas)	P. St. Catherine's Mar. 16
DELAWARE □	New York ..	Liverpool ..	Arr. Mar 11
DERBENT	Batoum ...	Liverpool ..	P. Constant'ple, Mar. 19
DEUTSCHLAND ..	Tyne	New York ..	L. Mar. 16
DIAMANT	New York ..	Hamburg ..	P. Prawle Pt., Mar. 16
EDWARD DAWSON	Zeebrugge ..	Middlesbro'	Arr. Mar. 6
EL LOBO..........	San Francisco	Lobitos	Arr. Mar. 1
ELAX*............	Singapore ..	Kobe	L. Mar. 8
ELISE MARIE	Tyne	Philadelphia	Arr. Mar. 11
ENERGIE	—	—	In P. Hamburg, Mar. 2
ERIVAN	Newcastle ..	Batoum	P. Constant'ple, Mar. 18
ETELKA	Fiume......	Pola	Arr. Dec. 14
EUPLECTELA* ..	Balekpappan	—	L. Mar. 13
EXCELSIOR	Rotterdam..	New York ..	Arr. Mar. 15
FRANCE MARIE (French bq.)	—	—	In P. Marseilles, Mar. 8
GEESTEMUNDE ..	Tyne	New York ..	Arr. Mar. 13
GENESSE □	London	Philadelphia	Arr. Mar. 14
GEORGIAN PRINCE	—	—	In Port, Mar. 8
GOLDMOUTH* ..	Singapore ..	Europe	L. Natal, Feb. 24
GUTHEIL	Boston	Cuba	L. Mar. 7
H. C. HENRY	Middlesbro'	Seattle	L. Monte Video, Mar. 13
HAINAUT (Du. sh.)	New York ..	Antwerp	L. Feb. 28
HARRY WADSWORTH	London	Middlesbro'	L. Mar. 17
HELIOS........ ..	Philadelphia	Hamburg ..	Arr. Mar. 4
HERMIONE	Rangoon ..	—	L. Feb. 22
HESPERUS........	New York ..	Avonmouth	L. Mar. 8
HOTHAM NEWTON	—	—	In Port Hull, Mar. 9, laid up
HYRCANIA........	Batoum	London	P. Gibraltar, Mar. 21
IOANNIS COUTZIS	Batoum	Rouen......	P. Gibraltar, Mar. 9-10
IROQUOIS □ (towing barge Navahoe)	London	New York ..	Arr. Mar. 13
J. B. AUG. KESSLER	Novorossisk	Rotterdam ..	P. Dungeness, Mar. 21
JAMES BRAND	New York ..	Portland	L. Mar. 10
JULES HENRI (French bq.)	—	—	In P. Marseilles, Mar. 8
KURA	Penarth	Philadelphia	P. Barry Island, Mar. 1
LA CAMPINE......	—	—	In Port Tyne, Mar. 8
LA FLANDRE	Philadelphia	Ghent	L. Mar. 11
LA HESBAYE......	Antwerp	Kustendje ..	At Malta, Mar. 21
LACKAWANNA □ ..	Manchester	Philadelphia	P. Nantucket, Mar. 15
LANSING..........	P. San Luis	San Francisco	Arr. Feb. 1
LE COQ†	Kustendje ..	Bordeaux ..	P. Gibraltar, Mar. 21
LOUTSCH	Cette	Odessa	L. Mar. 9
LUCERNA	Novorossisk	Ghent	Arr. Constant'ple, Mar. 14
LUCIGEN	—	—	In Port Tyne, Mar. 8, laid up
LUCILINE†	Havre	Rouen	L. Mar. 22
LUMEN............	Tyne	Ibrail	P. Algiers, Mar. 17
LUTETIAN†	Newport (Mon.)	Tyne	Arr. Feb. 11
LUX†	Novorossisk	Gironde	P. Malta, Mar. 15
MANHATTAN	New York ..	Messina	P. O. Hd. Kinsale, Mar. 20
MANNHEIM	New York ..	Swinemunde	P. Dunnet Head, Mar. 17
MARGARETHA ..	Messina	—	P. Gibraltar, Mar. 17
METEOR..........	Vladivostock	U.K. or Cont.	L. Mar. 3
MEXICAN PRINCE	Cienfuegos..	Homewards .	L. Mar. 1
MINA BREA	Talara	Callao	Arr. Caleta Buena Feb. 13, and L. Mar. 17
MINHLA	Rangoon....	Bombay	L. Feb. 28
MIRA..............	—	—	In Port Blyth, Mar. 8, laid up
MUREX*	Freshwater. .	Balekpappan	L. Mar. 17

Vessel.	From.	For.	Latest Date and Position
NARRAGANSETT	New York	London	L. Mar. 5
NAVAHOE	London	New York	Sp. Mar. 2, about 50 N., 22 W., in tow of "Iroquois"
NEW YORK□	New York	Rotterdam	P. Walmer, Mar. 15
NIAGARA	Singapore	—	L. Natal, Mar. 3
OBERON	Taltal	San Francisco	Arr. Mar. 9-10
OCEAN	Antwerp	Kustendje	P. Lizard, Mar. 21
OILFIELD	—	—	In Port Tyne, Mar. 8
OKLAHOMA	Port Arthur	Philadelphia	L. Feb. 22
ORIFLAMME†	Havre	Tyne	Arr. Mar. 2
OTTAWA□	London	Liverpool	Arr. Mar. 11
OURAL	Antwerp	Batoum	P. Ushant, Mar. 15
PATELLA*	Samboe	San Francisco	L. Muroran, Mar. 6
PAUL PAIX	Middlesbro'	Kustendje	Arr. Mar. 17
PAULA	Philadelphia	Landscrona	P. Butt of Lewis, Mar. 13
PECTAN	Panama	Port Harford	Arr. Mar. 2
PENNOIL	Tyne	Philadelphia	Arr. Mar. 13
PETROLEA	Hull	Rotterdam	L. Mar. 21
PETROLEINE	Cette	Novorossisk	P. Constant'ple, Mar. 9
PHOEBUS	Rotterdam	New York	Arr. Mar. 14
PINNA†	Port Said	U.K.	L. Mar. 21
POTOMAC□	New York	Manchester	P. Philadelphia, Mar. 21
PROGRESSO ARGENTINA (Ar. bq.)	Port Arthur (Texas)	Buenos Ayres	Arr. Dec. 10
PROMETHEUS	Emden	New York	L. Mar. 7
PRUDENTIA	Port Arthur (Texas)	London	At Norfolk, Mar. 8
PURELIGHT	Tyne	Philadelphia	P. Dunnet Head, Mar. 17
QUEVILLY (Fr. bq.)	—	—	In Port Havre, Mar. 8
RENDOVA (Br. bq.)	Bonanza	Sydney (N.S.W.)	Arr. Feb. 8
RION	Blyth	New York	Arr. Mar. 21
ROCK LIGHT†	Port Arthur (Texas)	Manchester	L. Mar. 14
ROMANY*	Balekpappan	Singapore	L. Mar. 17
ROTTERDAM	New York	Amsterdam	L. Mar. 10
ROUMANIAN†	Hull	Port Arthur (Texas)	P. Dover, Mar. 20
RUSSIAN PRINCE	Liverpool	Cuba	P. Cienfuegos, Mar. 21
SALAHADJI*	Balekpappan	Singapore	L. Mar. 16
SAN ANTONIO	London	Southampton	P. Puerto Mexico
SAN CRISTOBAL	Port Arthur	Puerto Mexico	L Mar. 6
SAN IGNACIO DE LOYOLA (Sp. bq.)	New York	Pasages	L. Jan. 26
SANTA MARIA	P. San Luis	Portland	L. Feb. 12
SANTA RITA	Port Harford	Guatemala	L. Mar. 6
SARANAC□	Philadelphia	Durban (f.o.)	P. Port Natal, Mar. 21
SAXOLEINE	Tyne	Novorossisk	P. Gibraltar, Mar. 7
SEMINOLE□	San Francisco	Kuchinotzu	Sd. Mar. 9
SERVIAN†	Eastham	Port Arthur (Texas)	Arr. Mar. 20
SIRIUS (Ger.)	Hamburg	New York	L. Tyne, Mar. 11
SNOWFLAKE	—	—	In Pt. Newport, Mar. 9
SOYO MARU	Honolulu	Yokohama	Arr. Feb 6
SPONDILUS*	Rotterdam	Shields	L. Nieuwe Waterweg, Mar. 21
STANDARD	New York	Hamburg	P. Dover, Mar. 14
STROMBUS*	New York	Madras & Calcutta	P. Perim, Mar. 12-3
SULTAN VAN LANGKAT*	Aroe Bay	Samboe	Arr. Mar. 19
SUN	Sabine	Marcus Hook	L. Feb. 23
SUNLIGHT (Br. bq.)	Avonmouth	Macoris	Arr. Feb. 17
SURAM	Kustendje	Amsterdam	Cld. Constant'ple, Mar. 11
SUWANEE□	New York	Tampico	Arr. Feb. 28
SVIET	Batoum	Marseilles	Arr. Mar. 14
TAMARAC□	London	New York	P. Nantucket, Mar. 20
TELENA*	Alexandria	Tyne	P. Flambro' Hd., Mar. 17
TEREK†	Hamburg	Kustendje	Arr. Mar. 22
TEXAS	New York	Philadelphia	Arr. Feb. 27
TIFLIS	Bougie	Batoum	L. Mar. 16
TIOGA□	Dublin	Kustendje	P. Sagres, Mar. 10
TONAWANDA□	Tyne	Philadelphia	Arr. Mar. 11
TRINCULO	Panama	San Francisco	Arr. abt. Mar. 11
TROCAS*	Shanghai	Bremerhaven	At Singapore, Mar. 15
TUSCARORA	New York	Bombay	S. Malta, Mar. 11
VEDRA	Batoum	Antwerp	P. Dungeness, Mar. 17
VILLE DE DIEPPE (Nor. bq.)	—	—	In Port Rouen, Jan. 24, laid up
VOLUTE*	Samboe	Amsterdam	L. Mar. 9
WASHINGTON	Tyne	Baltimore	Arr. Mar. 15
WASHTENAW	San Pedro	San Francisco	L. Feb. 27
WEEHAWKEN	Barrow	Kustendje	L. Mar. 13
WILLKOMMEN	Philadelphia	Stettin	P. Dunnet Head, Mar. 21
WINNEBAGO	New York	Port Natal	Arr. Port Said, Mar. 15

Latest Market Intelligence.

LONDON OIL MARKET.

Supplied by Messrs. Benjamin & Gee, 31, St. Mary Axe, E.C.

March 23rd, 1910.

The price of Refined Petroleum still remains unaltered as follows:—Russian, 5¾d.; Roumanian, 7d.; American, 6d.-6¼d.; Water White, 7d.-7¼d.

LUBRICATING OILS.

There are no alterations to report, current prices being:—

American pale, £6 10s. to £9 10s.
American dark cylinder, from £7 12s. 6d.
American filtered cylinder, from £10 12s. 6d.
No. 1 Russian, for Spot, £8.

TURPENTINE.

American Turpentine is very firm, and is now quoted for Spot, 42s. 9d., but slightly less for forward delivery.

LIVERPOOL OIL MARKET.

March 23rd.

Refined oils are quiet, and sellers quote 6d., for Russian, Galician or Roumanian; and 6½d. to 7d. per gallon for American.

LATEST AMERICAN PRICES.

New York, March 23rd.

Refined, in cases, is steady at 10·30; Standard White, 7·90; Credit balances, 1·40.

Philadelphia, March 23rd.

Standard White is now quoted at 7·90.

GERMANY.

Hamburg, March 23rd.

The petroleum market is without any change. American, ·800–6·30 marks; Pennsylvanian, 6·40 marks; Galician, 6·30 marks. Russian and Roumanian not on the market.

RUSSIA.

Baku, March 22nd.

The market is somewhat lower. Crude oil is quoted at 17¾ copecs per pood spot. Kerosene, in ships, 23 copecs spot; 26 copecs next navigation. Mazout 19 copecs.

BELGIUM.

Antwerp, March 22nd.

The petroleum market is without change. Price of Standard White, spot, 22·50 francs per 100 kilos.

ROUMANIA.

March 23rd.

	Francs.
Crude oil from different fields, including pipe line charges, per 100 kgs.	3·50–3·60
Refined oil, exclusive of taxes, ex. refinery	8·30
Residuals in tank waggons, at refinery	3·50–3·60
Paraffin	110–120
Prices for Export.	
Refined oil, f.o.b., per 100 kgs.	6·00–6·50
Benzine, sp. gr. 0·710–0·715, f.o.b.	16–17
" sp. gr. 0·715–0·720 "	14·50–15·50
" sp. gr. 0·730–0·740 "	10–11
" sp. gr. 0·745–0.755 "	9–10
Lubricating, horticultural	33
" prime	36
" extra	42
" Royal, "Steaua Romana"	46
Imperial "Aurora"	46
Vacuum-Ideal "Vega"	52

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IMPORTS of PETROLEUM into UNITED KINGDOM

Specially prepared for this Journal by the Custom House.

FOR THE WEEK ENDED MARCH 14TH, 1910—

Date.	Port and Importers.	Description.	No. of Gals.	Port Whence.
Mar.	London—			
8	United Shipping Co. ..	Lub.	40	Bremen
8	Port of London Authority ..	,,	2,280	Hamburg
8	,, ..	,,	1,800	,,
8	J. Harrison	,,	220	Antwerp
8	,, ..	Lub. Gr.	310	,,
8	British and Foreign Wharf ..	Lub.	1,060	,,
8	J. Harrison	,,	1,010	,,
8	W. F. Watt	,,	2,000	Hamburg
8	Schlieman's Oil Co. ..	Lub. Gr.	3,000	,,
1	,, ..	Lub.	1,800	,,
8	Thomas and Bishop	Lub. Gr.	200	Rotterdam
8	Michael Pintus & Somerfield	,,	600	Antwerp
9	Grindley and Co.	Lub.	240	,,
9	T. H. Lee	Lub. Gr.	280	Hamburg
3	Asiatic Petroleum Co. ..	Benzine	5,050	Rotterdam
10	Argo Steamship Co. ..	Lub.	300	Bremen
10	J. Harrison, Ltd.	,,	350	Antwerp
10	Lubricating & Fuel Oils, Ld.	,,	4,100	Philadel.
10	Page, Son and East ..	Lub. Oil and Gr.	120	Antwerp
10	British and Foreign Wharf...	Lub.	1,050	,,
11	Mordaunt Bros.	,,	5,000	Philadel.
11	,, ...	,,	9,200	,,
11	J. D. Hewett and Co. ..	Fuel	100	Colombo
11	T. H. Lee	Lub. Gr.	50	Hamburg
11	C. Shaw, Lovell and Sons ..	Lub.	1,680	,,
11	Anglo-American Oil Co. (Harry Wadsworth)	Gas	800,720	Sabine
12	W. F. Watt	Lub.	2,000	Hamburg
12	Worthington and Boler ..	,,	6,000	Philadel.
12	,, ..	,,	4,800	,,
14	Lubricating & Fuel Oils, Ld.	,,	7,590	,,
14	,, ..	,,	2,260	,,
14	Page, Son and East ..	,,	40	Antwerp
14	J. Harrison	Lub. Oil and Gr.	280	,,
14	Snowdon, Sons and Co. ..	Lub.	2,740	Philadel.
14	Anglo-American Oil Co. ..	,,	74,000	New York
14	,, ...	,,	60,400	Philadel.
14	,, ...	,,	18,000	,,
14	Mordaunt Bros.	Lamp	10,000	Hamburg
14	M. Record	Lub.	1,200	Philadel.
14	Thames Tug & Lighterage Co.	,,	6,000	,,
14	E. J. Walkenshaw	,,	6,400	,,
14	Langley, Smith and Co. ..	,,	2,400	,,
14	Union Lighterage Co. ..	,,	33,780	,,
14	,, ...	,,	4,800	,,
	Liverpool—			
8	Crew, Levick and Co. ..	,,	850	Philadel.
8	Bramwell, Fern and Co. ..	,,	5,830	
8	S. R. B. Melling and Co. ..	,,	800	New York
8	Shropshire Union Rail Co.	,,	6,220	Philadel.
8	Penwarden and Jackson ..	,,	410	Antwerp
8	Pickfords, Ltd.	L. Paste	370	Hamburg
Mar.				
8	Liverpool Storage Co. ..	Lub.	5,200	Newp't Nws.
10	W. H. Samuel and Co. ..	,,	120	Hamburg
10	Liverpool Storage Co. ..	,,	400	New York
10	G. B. Taylor	,,	49,800	,,
10	,, ...	,,	15,800	,,
10	,, ...	,,	2,400	,,
10	Vacuum Oil Co.	,,	80	Genoa
11	Anglo-American Oil Co. (Delaware)	Lamp	1,297,370	New York
11	,, (Ottawa)	Gas	292,410	,,
14	Pickfords, Ltd.	Lub. Oil and Paste	90	Hamburg
14	W. Gibson and Sons ..	Lamp	2,050	Boston
14	C. W. Field and Co. ..	Lub.	500	Antwerp
14	Valvoline Oil Co.	,,	22,140	New York
14	Shaw and Hamilton ..	,,	190	Antwerp
	Cardiff—			
5	Bristol S. Navigation Co. ..	Lub. Gr.	80	Hamburg
	Bristol—			
7	Anglo-Bosphorus Oil Co. ..	Lub.	3,030	Antwerp
9	C. Hill and Sons	,,	18,080	New York
9	,, ...	,,	5,340	,,
9	J. and R. Bush	,,	14,800	,,
9	Ford and Canning	,,	3,730	,,
9	C. Hill and Sons	,,	6,000	,,
10	Pickfords, Ltd.	Lub. Oil and Paste	110	Hamburg
10	,, ...	Lub. Gr.	1,230	New York
14	Anglo-Bosphorus Oil Co. ..	Lub.	4,280	,,
	Goole—			
14	Lancs. and Yorks. Railway	,,	280	Hamburg
	Grimsby—			
8	J. Sutcliffe and Sons ..	,,	80	Antwerp
11	,, ..	,,	60	,,
	Harwich—			
8	Great Eastern Railway ..	Lub. Gr.	80	,,
	Hull—			
8	Wilsons and N.E. Co. ..	Lub.	2,080	Hamburg
8	,, ...	,,	2,240	Antwerp
8	W. Gilyott and Co.	,,	5,240	New York
10	G. Hardy and Co.	,,	270	Antwerp
10	W. Gilyott and Co. ..	,,	47,520	New York
10	Wilsons and N.E. Co. ..	,,	2,930	Antwerp
10	,, ...	,,	300	Hamburg
	Manchester—			
8	Eugen Kammer and Co. ..	,,	90	Rotterdam
8	Manchester Ship Canal Co.	,,	80	New York
8	Schofield and Co.	,,	3,110	Philadel.
8	W. Hodgson and Co. ..	Lub. Gr.	470	New York
9	Diamond Lubricating Co. ..	,,	3,000	,,
8	Liverpool Storage Co. ..	Lub. Oil and Gr.	15,980	,,
12/2	Diamond Lubricating Co...	Lub.	3,750	,,

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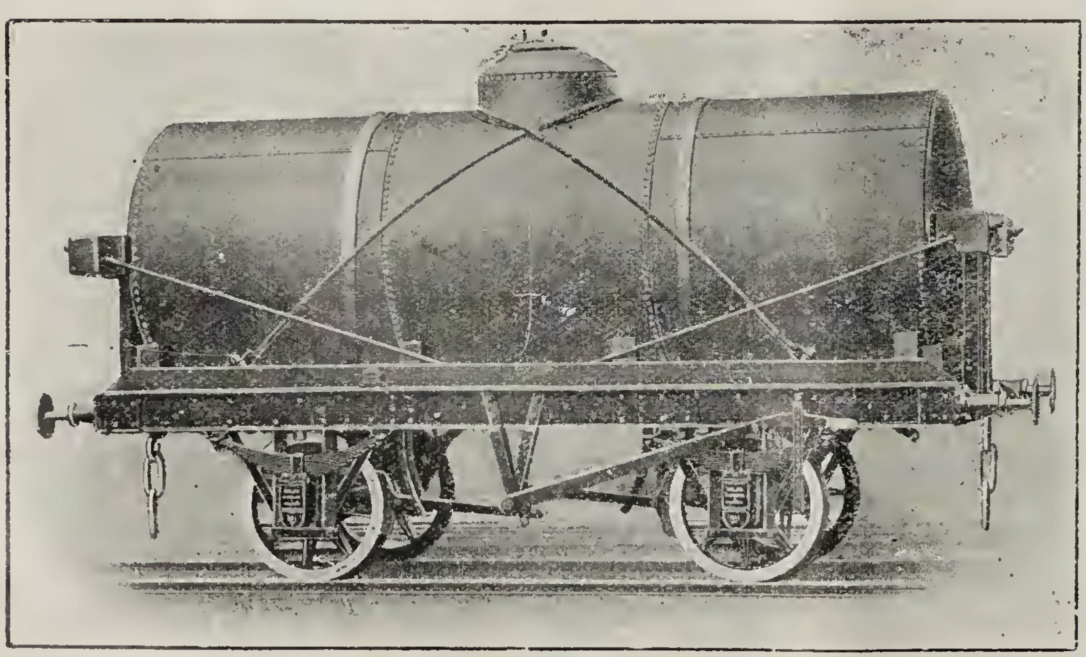

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IMPORTS.—(*Concluded*).

Date. Mar.	Port and Importers	Description.	No. of Galls.	Port Whence.
	DUNDEE—			
10	D. Alexander and Sons ..	Lub.	5,240	Hamburg
	GLASGOW—			
8	Clyde Shipping Co.	Lub. Gr,	410	Antwerp
9	Anchor Line	Lub.	46,040	New York
9	,, ..	,,	31,200	,,
14	,, ..	,,	34,400	,,
	GRANGEMOUTH—			
7	J. Currie and Co.	L.Paste	120	Hamburg
8	W. Graham-Yooll and Co...	Lamp	2,000	,,
9	,, ..	,,	4,000	,,
14	,, ..	,,	2,000	,,
	LEITH—			
8	J. Currie and Co.	Lub.	2,000	,,
10	W. Graham-Yooll and Co...	Lamp	4,360	,,
10	J. Currie and Co.	Lub.	4,300	,,
10	G. Gibson and Co.	,,	2,020	Antwerp
14	W. Graham-Yooll and Co...	Lamp	4,360	Hamburg
14	J. Currie and Co.	Lub.	2,040	,,
14	,, ..	,,	120	Bremen
	DUBLIN—			
8/3	Palgrave, Murphy and Co...	Lamp	12,500	N. Orleans
	Total for the Week ..		3,089,630	
	Deduct to correct—			
	LONDON—			
19/2	Lub. and Fuel Oils Co. .. (Derbent)	Lub.	20,500	Batoum
	LIVERPOOL—			
15/2	Meade-King, Robinson & Co. (Vedra)	Gas	10,460	Pt. Arthur

FOR THE PERIOD ENDED 19TH MARCH, 1910—

Date. Mar.	Port and Importers	Description.	No. of Galls.	Port Whence.
	LONDON—			
15	A. Brown and Co.	Lub.	7,200	Philadel.
15	Bowring Petroleum Co. ..	,,	9,180	,,
15	Lub. and Fuel Oils Co. ..	,,	10,660	,,
15	Anglo-American Oil Co. ..	,,	520	New York
15	,, ..	,,	60,400	Philadel.
16	Port of London Authority ..	,,	3,960	Hamburg
16	Livett Frank and Son, Ltd..	,,	1,600	New York
16	Thames Tug & Lighterage Co.	,,	13,200	Philadel.
16	Perkins and Homer ..	,,	2,400	,,
16	Juett and Cain	,,	4,800	,,
16	White and Foxwell	,,	4,800	,,
16	Asiatic Petroleum Co. ..	Benzine	5,000	Rotterdam
17	T. H. Lee	Lub. Gr.	910	Hamburg
17	Page, Son and East.. ..	,,	40	Antwerp
17	Wilkins, Campbell and Co...	,,	480	,,
17	W. F. Watt	Lub.	3,000	Hamburg
17	E. J. Walkinshaw	,,	6,000	New York
17	Anglo-American Oil Co. (Narragansett)	,,	577,280	,,
17	,, ,, ..	Lamp	2,223,760	,,
18	Mercantile Lighterage Co...	Lub.	32,750	,,
18	A. Brown and Co.	Lamp	4,000	Philadel.
18	Ragosine and Co.	Lub,	790	Riga
18	Port of London Authority ..	,,	80	Hamburg
19	,, ..	,,	840	,,
19	C. Shaw Lovell and Sons ..	,,	1,680	,,
19	British and Foreign Wharf.	,,	40	Antwerp
19	Mercantile Lighterage Co...	,,	8,750	Philadel.
19	,, ..	Lamp	1,200	,,
	LIVERPOOL—			
15	Vacuum Oil Co.	L.Resid.	12,000	New York
15	,, ..	Lub.	13,080	,,
15	,, ..	,,	1,300	,,
15	Burnaby and Chantrell ..	Lub. Gr.	620	,,
15	J. Light and Son	Lub.	3,000	,,
16	Liverpool Storage Co. ..	,,	1,200	,,
16	E. Harrison and Co. ..	,,	14,000	,,
17	F. Cheesman and Co. ..	,,	3,000	,,
17	D. Currie and Co.	,,	480	Hamburg
19	Bowring Petroleum Co. ..	,,	3,150	New York
19	,, ..	,,	3,920	Philadel.
	BRISTOL—			
17	C. Hill and Sons	,,	13,040	,,
17	J. and R. Bush	,,	30,640	,,
17	W. G. Clarke	,,	480	Antwerp
17	First Anglo-Russian Oil Co.	,,	430	Hamburg
18	E. Stock and Sons	,,	2,000	,,
	GLOUCESTER—			
17	Bristol Steam Nav. Co. ..	,,	80	,,
	GOOLE—			
17	Goole Steamship Co. ..	Lub.	100	Hamburg
17	,, ..	,,	1,350	,,
	HARTLEPOOL—			
17	W. Hartlepool S.N. Co. ..	,,	800	,,
17	,, ..	Lamp	2,100	,,
	HARWICH—			
16	Great Eastern Railway ..	Lub.	240	Antwerp
	HULL—			
15	Wilsons and N.E. Co. ..	,,	800	Hamburg
15	,, ..	,,	1,360	Antwerp
17	,, ..	,,	120	Hamburg
17	,, ..	Lub.Gr.	90	Antwerp
17	T. Wilson, Sons and Co. ..	Lub.	420	Bergen
17	,, ..	,,	400	Drontheim
18	,, ..	,,	1,200	Riga
19	Asiatic Pet. Co. (Petrolea)..	Crude	50,240	Rotterdam
	MANCHESTER—			
18	G. B. Taylor	Lub.	150,560	New York
19	Liverpool Storage Co. ..	,,	12,170	,,
19	Manchester Liners	,,	2,400	Philadel.
	MIDDLESBRO'—			
14	E. Harris and Co. ..	,,	240	Antwerp
	NEWCASTLE—			
15	Tyne Tees Steamship Co. ..	,,	200	Hamburg
	NEWPORT—			
15	Jones, Heard and Co. (Rhodesian)	,, (Damaged)	4,790	New York
	SOUTHAMPTON—			
15	P. E. Curry	Lub.	150	,,
	SWANSEA—			
16	Richards, Turpin and Co...	,,	2,960	,,
	ABERDEEN—			
14	R. C. Reid and Co. ..	Lamp	4,000	Hamburg
14	,, ..	Lub.	3,020	,,
	DUNDEE—			
15	D. Alexander and Sons ..	,,	480	,,
	GLASGOW—			
17	Allan Bros. and Co... ..	,,	86,250	Philadel.
18	Burrel and Son	L.Resid.	10,400	Trieste
	GRANGEMOUTH—			
17	W. G. Yooll and Co. ..	Lamp	2,000	Hamburg
17	J. Currie and Co.	Lub.	1,000	,,
	LEITH—			
17	J. Cormack and Co. ..	,,	480	Riga
17	W. G. Yooll and Co. ..	Lamp	4,360	Hamburg
	BELFAST—			
16	J. C. Pinkerton and Co. ..	Lub.	320	,,
	CORK—			
15	Palgrave, Murphy and Co...	Lub. Oil and Paste	110	,,
			3,434,850	
	Deduct to correct—			
	LONDON—			
21/2	Lubricating & Fuel Oils Co.	L.Resid.	14,900	Batoum
	HULL—			
4/3	T. Wilson, Sons and Co. ..	Lub.	5,240	New York
			3,414,710	

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The Petroleum Review.

By PAUL DVORKOVITZ.

Vol. XXII. *(New Series.)* April 9th, 1910. No. 474

THE PETROLEUM REVIEW:

The ANNUAL SUBSCRIPTION for both English and Foreign readers is 26s., including Postage. Single Copies may be had at the offices at 1s.

The Editor would esteem it a favour if readers, when communicating with the various firms advertising in our pages, would mention the "Review."

Contributions upon items of interest are always welcomed from subscribers, but in each case these should be accompanied with the name and address of the sender, not necessarily for publication.

Editorial Notes.

The Oil Boom. With each passing week the oil boom continues to increase in its sphere of activity, until to-day it is safe to say that almost every known petroleum field in the world is commanding the attention of the British capitalist. For many years past we are aware that the claims of genuine petroleum enterprises have not received that whole-hearted support to which they have been entitled, but now the trend of events proves conclusively that we are upon the eve—so far as this country is concerned—of the greatest oil boom ever known. From what we have just said, it will be clear that we do not fall in with that opinion freely expressed in the daily press that a few months will see oil enterprises drop back to that position of minor importance which they have with but very few exceptions occupied in the past: in fact, our inside knowledge of the present situation unmistakably teaches us that the future has greater things in store than the pages of history record. Oil has long ago become a very real factor both from a domestic and an industrial point of view. It illumines the homes of the settler in far distant lands, it creates the power by which the quickest expresses of the world almost annihilate space, and it provides the energy by which countless vessels, both of peace and war, sweep our seas, while its multifarious products find profitable employment in every branch of trade. Surely in this age of progress there is every reason why the present boom in oil, especially in this country, should not only continue but increase in its weighty proportions as time goes on.

A Timely Warning from Dr. Dvorkovitz. Out of all the petroliferous regions in the world which are now claiming attention, none are more conspicuous than the Maikop field in Southern Russia, in which field Dr. Dvorkovitz has been upon a lengthy tour of inspection on behalf of important London interests. During the present week Dr. Dvorkovitz has cabled to London information which, coming from the authoritative source it does, should be continuously borne in mind by intending investors in this prolific oil region of the Caucasus. Dr. Dvorkovitz's cable, *in extenso*, reads as under:—"In view of the great interest taken by the London investor in the Maikop fields, care should be taken that upon concluding agreements for the purchase of claims at Maikop, the original certificates issued by the Ekaterinodar District Department should be produced. Certified copies are valueless. Many cases have occurred here of people who have sold their claims twice, and a number of Maikop claims are now being offered in the London market which do not belong to Cossacks, but to so-called 'settlers.' Such claims are declared by a leading Ekaterinodar legal authority —M. Verbitscheff—to be valueless, the purchaser running the risk, as no clear titles can be secured." We are aware that during the past few days several instances have been brought to light in connection with transactions made in London, and therefore the timely warning of Dr. Dvorkovitz should impress intending purchasers of Maikop plots to exercise the greatest caution, otherwise they will deserve all the disappointment which may be in store for them.

An Important American-Japanese Combine. Our German contemporary, *Deutsche Japanpost*, gives prominence to an interesting statement with reference to Japanese petroleum affairs. It points out that a combination has been formed among the four large petroleum companies which supply petroleum to the Japanese markets, with the result that more remunerative prices are now being obtained. The four companies referred to are the Hoden Sekkyn Kaisha and the Nippon Sekkyn Kaisha, which are operating in the Japanese fields, and the importing companies—the Standard Oil Co. and the Rising Sun Co. The yearly consumption of petroleum in Japan is approximately 10,000,000 cases, and of this quantity the importing companies supply two-thirds. As is known, the Japanese oil is somewhat inferior to American, but owing to the fact that the latter has to stand considerable transport charges, the home product commands a ready sale in the ratio above stated at slightly lower prices than that which the American product realises. The basis of the new agreement is understood to be that the American importing firms shall supply two-thirds of the total needs of Japan, and the home companies the remaining third. Thus, in future the Japanese petroleum-producing companies will be free to pay more attention to the development of their producing resources rather than to struggle for a larger portion of the home markets needs, and at the same time they will be in the position of commanding enhanced prices for their products.

The Grosny Petroleum Industry. Should the activity which is at present being witnessed in the Grosny oil fields continue throughout the twelve months there is of a certainty another record in store for the petroleum industry in that part of Russia. It is now about six years ago since petroleum producers were very sceptical as to the future of the Grosny field, but events of the intervening years have proved that the Grosny district is capable of ranking as second to none in Russian petroleum producing regions. As compared with the total crude oil output of 1903, the production to-day is almost double, and this in spite of the fact that the yield from spouters is a diminishing quantity. Even during the past twelve months the production from fountains has considerably decreased though the total output is substantially augmented. Last year only about 6,000,000 poods of oil were produced by spouters—a figure less than one-half what it was in 1908—yet the total output attained a record, and it is this which most conclusively proves the fact that the Grosny petroleum industry is continuously advancing. It is not generally known that the Grosny wells are far more prolific than those in the Baku field, a rough average of the production of a single well being over 800 poods per day. The utilisation of the natural gas of the borings is now finding great favour upon the fields, and naturally the more natural gas consumed, the less the consumption of crude oil: consequently the wells are now being more economically worked than was the case formerly.

American Petroleum Again Enters France. The tariff difficulties which have for the past few months absolutely barred American petroleum products entering France have now happily been removed, and regular shipments to the French ports again resumed. Toward the end of last year, it will be remembered, that with the expiration of a commercial treaty an effective barrier was placed against the importation of American petroleum products into France, by reason of the Government insisting upon the payment of a rate upon American petroleum double that paid by petroleum products from other countries of origin. From that time until a week or two ago, the imports of American petroleum into France were practically nil, in fact for a month or two not a single gallon entered the ports of France, but thanks to the weight of negotiations which have been proceeding, the restrictions have now been removed, and in the future America will enjoy the same privileges as other petroleum producing nations in regard to her imports into France. We are personally pleased that this *rapprochement* has been brought about, for it is not only of far-reaching importance to the American petroleum industry in general, but also of direct interest to the consumers in France, since that country demands high-grade illuminating oil preferably of American origin, and in this respect about 40,000,000 gallons are consumed annually.

AUSTRIAN EXPORTS DURING DECEMBER.

The exports of petroleum products from Austria during December, 1909, to the various countries were as under (in tons) :—

To	Crude and Resid.	Illum. Oil.	Benzine, Refined.	Benzine, Unrefined.	Heavy Dis. and Lub. Oil.
Belgium	—	435	—	30	627
England	—	18	—	—	157
Germany ..	525	15,840	—	2,088	6,367
Italy	66	676	91	—	411
France	—	1,647	635	39	278
Switzerland ..	318	3,547	498	326	492
Turkey	—	819	—	—	—
Other Countries..	—	662	1,687	317	1,071
Total	909	23,644	2,911	2,800	9,403
December, 1908	628	27,489	1,912	1,680	9,123

THE PETROLEUM TRADE OF FIUME.

A report of the French Consul at Fiume states that the petroleum refining industry in that port is well prospering. In 1908, 173,000 quintals of illuminating oil were obtained, as well as 19,000 quintals of benzine, 47,000 quintals of lubricating oil, 16,000 quintals of paraffin and 58,000 quintals of gas oil. Crude oil was imported into Fiume in 1908 only by land, namely, 12,966 quintals (against 339,852 in 1907) and also 56,366 quintals of refined oil (against 37,277 quintals in 1907). There were sent to the interior of the country 164,745 quintals of illuminating and 76,616 quintals of lubricating oil. The exports from Fiume by sea have considerably increased, —from 119,220 quintals in 1907 to 180,196 in 1908.

[A quintal is 100 kilog., or slightly under two hundredweight.—Ed. *P.R.*]

ROUMANIAN PRODUCTION IN FEBRUARY.

The Roumanian production of petroleum during February amounted to 109,199 tons, as against 121,462 tons produced in January. The following shews the production of various districts: –

	February. 1910.	January. 1910.
Prahova District—		
Bustenari	26,207	29,361
Campina	24,309	26,053
Moreni	37,428	41,182
Baicoi	14,193	17,202
Other Fields	895	854
Total for Prahova District ..	103,032	114,652
,, Dambovitza District ..	2,560	3,011
,, Buzeu District	1,741	2,256
,, Bacau District	1,866	1,543
Total	109,199	121,462

The total production thus shews a decrease of 12,263, or of about 10 per cent.

PETROLEUM DEPOSITS IN TURKEY.

In the vilagets of Morkul, Bagdad and Baskorak, indications of the presence of considerable oil deposits were known for some time past. There is now an intention to commence the exploitation of petroleum in these districts, and eventually a considerable reduction in Turkish prices of illuminating oil may follow. Refineries are going to be built and liquid fuel introduced on the railways, in the fleet and in private industry. There is rumour of an American company having obtained from Government the exclusive concession for the exploitation of the petroliferous lands.

AMERICAN NOTES.

A Californian Gusher.—The Union Co., of California, has recently brought in a well in the Midway field which commenced flowing at 10,000 barrels daily, and at the present time is reported to be good for nearly 30,000 barrels per day. The well was brought in at a little over 2,200 feet.

Petroleum Export Statistics. — During the past eight months the quantity of petroleum products shipped from America to foreign markets amounted to 969,000,000 gallons, as compared with 966,000,000 gallons for the corresponding period of the preceding year. The value of the products for the past eight months was 4,000,000 dollars more than was the case for the corresponding period of one year ago. Illuminating oil exports have decreased, but in the other classes of products gains are recorded.

A Nasty Knock.—The Mexican oil war still continues its merry course. Recently a Mexican paper came out with the following advt. of the Waters Pierce Oil Co, which is a gentle rap at the quality of the products turned out from the Pearson refinery at Minatitlan. The advt. read "A tank steamer of so-called 'national products' returned unsold from England to Mexico. Do the products of our competitors need a sea voyage to improve their quality?"

The LONDON AND THAMES HAVEN OIL WHARVES, Ltd.

. . ANOTHER HIGHLY SATISFACTORY YEAR . . .

The twelfth ordinary general meeting of the shareholders of the London and Thames Haven Oil Wharves, Ltd., was held on Wednesday last week at The Baltic, St. Mary Axe, E.C.—Sir Owen Philipps, K.C.M.G., M.P. (chairman of the company), presiding.

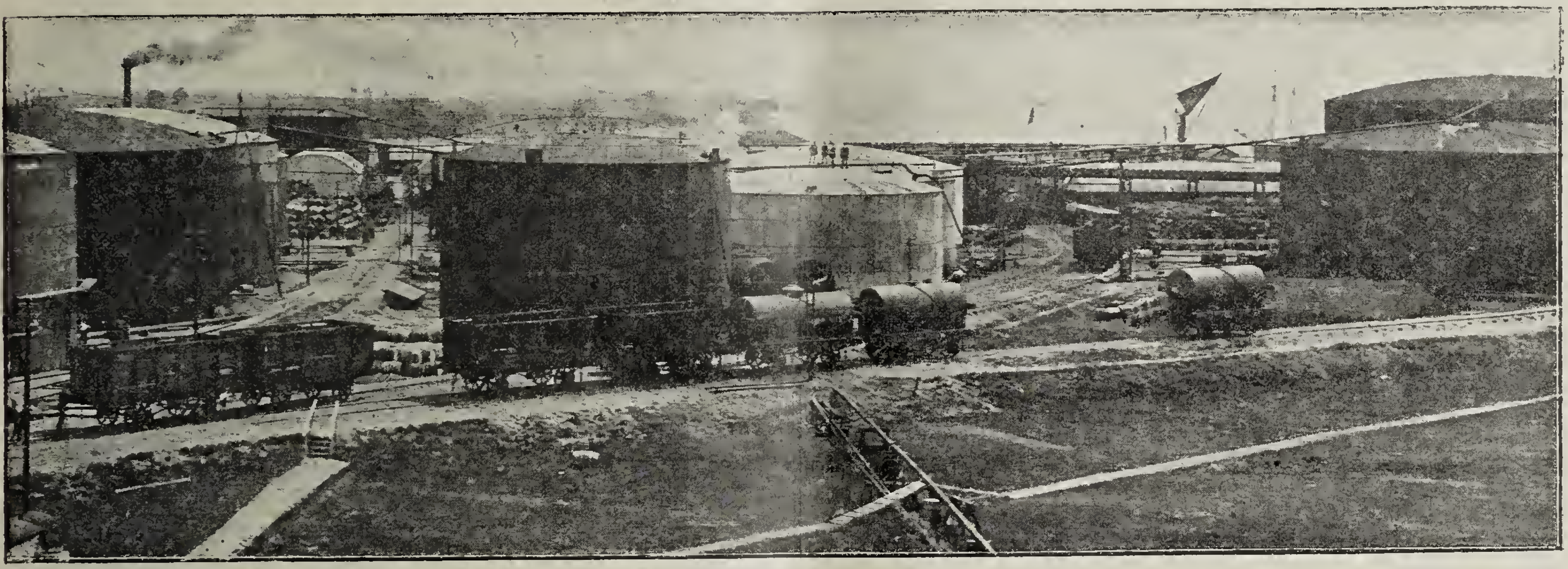
The Secretary (Mr. T. Clarkson J. Burgess) having read the notice convening the meeting and the auditors' report, the report and balance sheet for the past twelve months were taken as read.

The report stated that the dividend on the preference shares for 1909 was paid on the 15th July, 1909, and 15th January, 1910, and after writing off depreciation and carrying £5,000 to reserve (thus making the reserve £20,000), the directors out of the available balance recommend that for the year ending 31st December, 1909, a dividend on the ordinary shares at the rate of 8 per cent. per annum be declared, and that the balance of £4,662 10s. 4d. be carried forward.

A payment at the rate of 5 per cent. per annum for the six months ending 30th June, 1909, was made in advance of the above dividend, and that amount would be deducted from full dividend when paid.

The company's works had been maintained in good order, and the cost of upkeep and renewals has been charged to revenue.

During the year 126 acres of freehold land adjoining the company's Thames Haven property had been purchased in view of possible developments in the scope of the company's operations. A further issue of ordinary shares would shortly be made.



A Portion of the Storages at Thames Haven.

The Chairman, in moving the adoption of the balance sheet and report of the directors, said: It is always a pleasant duty to preside at these meetings, because we have invariably been able to present a satisfactory report to the shareholders, and I think you will all agree that the report we present to-day is not less satisfactory than those which have preceded it. We are again able to recommend a dividend at the substantial rate of 8 per cent. per annum, and I might mention that during the year 1909 every branch of the company's business expanded. Some years we have been more dependent for prosperity on one branch; when that died away we were dependent on another branch of trade; but during 1909 every branch of the company's business has been prosperous. As mentioned in the report, during the year we have purchased 126 acres of additional freehold land. As you know, our wharf at Thames Haven is on freehold land, and we were in this position: we had this valuable property at Thames Haven, which contributed a very large sum every year in rates to the local council, and notwithstanding that we got absolutely nothing for our money. We had no road or right-of-way to our place; it was only legally possible to get to our property either by going down the Thames—a very good way, but, still, sometimes, rather slow—or by going by the railway. This year we had an opportunity of buying this additional freehold land, which, for the first time, gives us free access to our own property, and this, I think, is a very valuable right for a big business of this kind. Then, some time ago, we applied to the Thames Conservancy for powers to build deep water quays alongside our land. As you know, at present we have two jetties, and we thought it would be an advantage for a company such as this, whose business is rapidly expanding, to have wharves where we could bring the largest steamers to discharge. The Thames Conservancy granted us the perpetual right of building these wharves. I might mention in passing that I believe every other right on the Thames is at the pleasure of the Authority; but this company owns what I am told is a perpetual right, if we proceed with this work. We are now proceeding with it, and I think it will be a very valuable addition to the company's already good facilities on the Thames. I should like to say a word about the old Thames Conservancy, which had to put up with a good deal of criticism during its lifetime. It was always anxious to do what it could to develop the great facilities of the River Thames, and, although it has not lived to see accomplished the great work which it authorised to be carried into effect, I know that you, as well as the public, will be interested to know that this old body did what it could to increase the facilities of the river. When we have completed this work steamers drawing no less than 40 feet will be able to come close alongside at low water, which they will not be able to do at any other place, I believe, on the river.

Some little time ago the Home Secretary appointed a Departmental Committee to inquire into the question of petroleum. The terms of reference to that Committee were "to inquire into the efficiency of the existing regulations relating to the storage, use, and conveyance of petroleum spirit, and to report what further precautions, if any, are, in their opinion, desirable as tending to diminish the dangers attendant thereon." This is a very important subject which has been referred to the Committee, and I am sure that all shipowners will have a desire to keep the navigation of the Thames as free from danger as possible. The members of the Committee who are inquiring into this important subject are Sir Henry Cunynhame, K.C.B., Sir Boverton Redwood, Major A. Cooper-Key (H.M. Chief Inspector of Explosives), Mr. A. Boyle (Engineer Surveyor-in-Chief of the Marine Department of the Board of Trade), and Mr. J. Ollis (Chief Officer of the Public Control Department of the London County Council). We shall, no doubt, be called later on to give evidence before this Committee, and I am sure the trade of London will feel satisfied with any evidence that we are able to give, because no one in London should be more competent than we are to express an opinion on the important questions referred to this Committee. With regard to the future, I am pleased to be able to tell you that we have started the new year quite satisfactorily. It is always satisfactory, when you are dealing with one year, to be able to say that the first quarter of the following year has started satisfactorily. The board have under consideration the question of issuing further share capital for the steady expansion of the company's business. As soon as we come to a definite decision upon the subject you will receive a communication from the secretary. I think that is all I have to say to you to-day, and I beg to move: "That the report and accounts for the year ended December 31st, 1909, now presented, be adopted, and that a dividend on the ordinary share capital of the company at the rate of 8 per cent. per annum, less income tax, be, and the same is hereby, declared, payable out of the profits of the company for the year ended December 31st, 1909, partly paid shares pro rata on amounts paid up from date of payments ; and that the same be paid less the sum paid in advance of such dividend."

Mr. Allan McCall seconded the motion.

Mr. S. H. Leonard said that the directors, and still more the shareholders, were to be congratulated on the very satisfactory accounts which had been presented. They not only justified the directors' recommendation of a dividend of 8 per cent., but if their courage had exceeded their caution they might have recommended the payment of a dividend of 11 per cent., if not 12 per cent. It was always better to err on the safe and cautious side, but a larger dividend might have been paid without in any way trenching on the reserve or on the proper allowances which were made in the accounts. Perhaps the most interesting feature of the report was the purchase of additional land. He knew the place personally, and he thought everyone who had seen it and knew the river frontage there would be of opinion that the purchase was an exceedingly wise and judicious one, because, in his opinion, land on that part of the Thames was sure to appreciate in value before long. In the report the directors spoke of possible developments, and he inferred from that that schemes—possibly alternative schemes—might be under consideration as to the nature of the developments. Until the directors came to a definite conclusion upon the subject he deprecated the issue of any further shares. They did not want to water their wine too much, or to put any obstacle or impediment in the way of getting the dividend increased to the 10 per cent. which he thought they received in three successive years not very long ago. At the present rate of money it seemed to him that they might be able to borrow at something like 4 per cent. When an issue of shares appeared to be necessary or desirable, he hoped the directors would give the preference to existing shareholders. The various inquiries which were going on with regard to the navigation of the River Thames was a matter of very serious importance to the company. He was exceedingly glad to hear that they would give evidence before the Departmental Committee. He had no doubt that that evidence would carry great weight, and that there was every chance of the company being able to maintain the advantages they already possessed of storing petroleum at Thames Haven where the danger was reduced to a minimum. It would be a most disastrous thing if large ships loaded with petroleum were allowed to come up the river where shipping was crowded and where the danger would be very great indeed.

Mr. Lordan asked if the directors had any intention of getting a Stock Exchange quotation for the company's shares.

The Chairman, in reply, said he always sympathised with anyone who liked a large dividend, but in conducting the affairs of a company such as this, one had to take everything into consideration, and the directors did not see their way to recommend more than 8 per cent this year. No doubt the company could borrow money cheaply, but as he had pointed out at previous meetings, they had a somewhat peculiar business. They were acting practically as public servants ; they were storing oil for the trade of London, and whenever that trade expanded, or shewed any signs of expanding, they made provision for the growing requirements. They did this without any security of tenure, and he thought it was well to adopt a conservative policy. In a business of their description it was best not to be loaded with a debenture debt, because if for any reason the business did badly for a year or two, they would not run the risk of being killed by having to pay debenture interest. With regard to a Stock Exchange quotation, some of the largest shareholders, representing quite one-half of the capital, did not think it was in the interests of the company to have a quotation. Many shares of small companies were quoted on the Stock Exchange at less than they were intrinsically worth, and he thought it would be a mistake for their shares to be quoted at such a price, especially as they might wish to make some arrangement which might be to the advantage of the shareholders. Replying to Colonel Mayhew, the Chairman stated that the company had temporary short loans to the amount of £12,000, which they had borrowed to carry on the business. He (the chairman) thought it was in the interest of the company to issue shares and pay off these loans and provide the additional capital which a steadily-growing business like this required.

The motion was carried unanimously.

Mr. McCall moved the re-election of Sir Owen Philipps as a director, and the motion was seconded by Mr. Alfred C. Adams and passed unanimously.

On the motion of Mr. J. Lamont, Jun., seconded by Mr. E. A. Gibson, the auditors (Messrs. Fookes, Hickman and Co.) were re-appointed, and a vote of thanks to the chairman terminated the proceedings.

◆

PROLIFIC WELLS IN GALICIA.

The most productive wells in the Galician fields during 1909 were the following:—

	Petroleum in tons.
Karpathian Petroleum Co. II.	197,040
Petroleum Industrie Co.	154,210
Wladyslaw II.	78,570
Premier Petrol Co.	61,390
Banzay I. and II.	55,150
Marya Therese III.	53,600

◆

Dr. Paul Schwarz Visits America.—Our well known confrère—Dr. Paul Schwarz of "Petroleum"—is now on a visit to the American fields. It is reported that he is investigating the independent supply of oil with a view of reporting to the German Government the advisability of establishing a government monopoly in the oil business.

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PROGRESS OF THE GROSNY PETROLEUM INDUSTRY.

The petroleum production at Grosny for the past year amounted, as has already been stated, to over 57,000,000 poods, shewing an increase of about 5,000,000 poods, as against the figures for the preceding year. The continuous progress of the crude oil production can be seen from the following table (in poods): –

1903	32,772,482	1907	39,424,048
1904	40,095.331	1908	52,059.480
1905	43,066,735	1909	57,033,015
1606	38,373,603		

From this table it will be noted that for the last six years the Grosny crude oil production shews a steady increase, amounting in the total to 73 per cent. In the year 1901 the production amounted to one-nineteenth of the Baku production, while now it is equal to almost one-eighth, a fact which clearly shews the substantial progress made. It is, moreover, important to notice that in the past year all the increase in the Grosny crude oil production is due to baling and not spouting oil, as shewn below:—

	Baling. Poods.	Spouting. Poods.
1909	50,997,451	6,035,564
1908	37,742,565	14,316,915

The producing firms during 1909 were the same as in 1908. For the last six years the number and individuality of the Grosny producing firms has not changed. All the small firms have disappeared, and their property has been acquired by the large firms, the number of which at the beginning of this year amounted to 13. Thus, in addition to a steady and continuous increase, the Grosny production also shews concentration.

The production of the various firms in 1909 was as follows:—

	Poods.
Akhverdoff Co.	23,812,609
Spies Co.	15,023,720
Maximoff's Trustees	4,570,430
Kasbeck Syndicate	4,145,405
Anglo-Russian Maximoff Co.	3,885,578
Russian Standard	2,152,710
North Caucasian Petroleum Co.	1,204,272
Tcheleken-Daghestan Co.	1,040,530
McGarvey	397,829
Caspian Black Sea Co.	292,140
St. Petersburg Society	250,700
Moscow Nafta Co.	238,810
Kasmin and Berman	17,291

The important operating firms—Spies Co., Akhverdoff, Kasbeck Syndicate, Russian Standard and McGarvey—all shew an increase in crude oil output, Spies Co. from 11,750,000 poods in 1908 to 15,000,000 poods in 1909.

For sixty years until 1903 the Grosny fields were exploited by means of hand-dug wells and produced 3,479,000 poods, but, as is known, from 1893 boring has been introduced, and since then the bored wells have yielded 527,971,637 poods, so that prior to the 1st of January, 1910, the total crude oil production of Grosny amounted to 531,450,647 poods. The average daily production per well was very large fifteen years ago, but since that time it first rapidly and then slowly diminished. In 1898 it was 1,500 poods, while in 1908 only 750 poods; but since then it has increased, and in December, 1909, was over 900 poods, thus reaching a limit considerably higher than that at Baku, though in November, 1909, the average was only 650 poods per well.

In 1908 the oil at Grosny was obtained from 42 plots, in 1909 from 45 plots, but the three new plots have not yet yielded much oil, owing to limited exploitation. The most productive of all the Grosny plots during the past year were:—No. 40, of Spies Co., 9,594,230 poods; Voiskovi and Ermolov plots, of Akhverdoff Co., 5,316,700 and 4,987,400 poods.

Of the wells the most productive was well No. 3, on plot No. 40, of the Spies Co., yielding 3,485,180 poods by baling alone; then No. 47, on plot No. 25, Akhverdoff's, with 3,115,600 poods, partly by baling and partly by spouting; well No. 6, on plot No. 7, Maximoff's Trustees, with 2,437,800 poods by baling alone. Two other wells on Akhverdoff's property have produced 2,200,500 poods and 2,195,800 poods, respectively, by baling. There are now no more wells similar to those on Akhverdoff's property, which yielded 10,000,000 and 9,000,000 poods in 1902 and 1903, and 25,000,000 poods in 1895; but there are many wells yielding a steady and good supply of oil by baling, so that in the result the production is now considerably larger.

The number of wells in exploitation on the 1st of January, 1910, was 170 (against 151 in 1909 and 149 in 1908).

The average depth of the Grosny wells is on the continuous increase. In 1899 it was 118·7 sagenes; on the 1st of January, 1909, 192·6 sagenes; and on the 1st of January, 1910, 208·3 sagenes. Thus the average depth increased for the last year by 15·7 sagenes (or 110 feet), and for the last ten years by 90 sagenes (or 630 feet). The total sum of depth in the producing wells amounted on the 1st of January, 1908, to 26,478 sagenes; in 1909 to 29,082 sagenes, and in 1910 to 35,833 sagenes, shewing that continuously increasing labour and expense are necessary for the production of petroleum.

The total number of wells in exploitation has considerably increased, being 258 in 1908, 287 in 1909, and 320 in 1910. The number of wells in boring and deepening were 45 in 1908, 51 in 1909, and 58 in 1910. The Grosny fields are now thoroughly studied and the wells are bored on genuine petroliferous lands, and not anywhere as was the case at the beginning of the Grosny industry.

The number of new bored sagenes is also increasing; in 1907 it was 7,547; in 1908, 9,060; in 1909, 11,792. The greatest depth has been bored by Spies Co. (4,173 sagenes), that by Akhverdoff Co. (2,513 sagenes), Kasbeck Syndicate (1,674 sagenes), Maximoff Trustees (1,165 sagenes), etc. Active boring is now taking plade on 18 new plots, covering an area of 177 dessatines, and when completed will considerably increase the production. The relation of boring at Grosny and Baku was as 1 to 20 in former years, while now it is only as 1 to 3. The total area of plots with derricks was 487½ dessatines on the 1st of January, 1909, while on the same date 1910 it was already 694½, shewing an increase of 43 per cent.

During 1909 on many plots in Grosny, natural gas was utilised as fuel for boilers, buildings, motors, and even for lighting purposes. Naturally, the quantity of petroleum used as fuel considerably diminished.

THE BAKU RUSSIAN PETROLEUM COMPANY (1909), LIMITED.

REPORT OF THE DIRECTORS.

The first statutory general meeting of the shareholders of the Baku Russian Petroleum Co. (1909), Ltd., will be held on Tuesday next, at the River Plate House, London, E.C., when the following interesting report will be presented for adoption:—

The directors report that the company was registered and the reconstruction agreement assigning the undertaking of the old company to this company signed on January 3rd, 1910.

By the terms of the prospectus the directors were not to proceed to allotment upon a less subscription than 1,050,000 shares of 10s. each (credited as 5s. paid), which was estimated to provide an initial cash working capital of about £60,000.

The total number of shares so far allotted (including the minimum subscription fixed by the articles of association and the shares allotted to the signatories to the memorandum) is 1,300,014, of which 14 have been allotted wholly for cash and 1,300,000 have been allotted credited as paid up to the extent of 5s. per share.

Arrangements have been made whereby the remaining 100,000 partly-paid shares will probably be taken up at an early date, and a substantial sum in cash has been received for the call of 99,986 shares—the balance of the authorised capital—at prices ranging from 10s. to 11s. per share.

The total amount of cash received by the company in respect of the above 1,300,014 shares is £72,787 17s. 1d. The preliminary expenses are estimated at £2,500. The receipts of the company on account of its capital and the payments made thereout are as follows:—

Receipts.

	£	s.	d.
Amount received from shares—			
Credited partly paid up	72,780	17	1
Payable wholly in cash	7	0	0
	£72,787	17	1

Payments.

	£	s.	d.
On account of purchase consideration	27,818	7	2
Naphtha purchase account	21,180	17	4
Administration and general charges	1,273	15	5
Preliminary expenses	107	5	0
Cash at bankers	22,407	12	2
	£72,787	17	1

The creditors' administration having decided to effect a forward contract for the sale of the naphtha output for one year as from the 1st to 14th November, 1910, the directors thought it expedient to buy the same, utilising some of the funds at their disposal in part payment of the purchase money. This investment should prove of a highly advantageous character, as it will prevent the undertaking from being trammelled by forward contracts with other parties when the company resumes possession of its properties, and will yield interest in the meantime at the rate of 7 per cent. per annum with absolute security.

In the scheme of reconstruction approved by the shareholders the directors were authorised to pay underwriting commissions amounting to £37,500. The directors were, however, able to place the shares without the payment of any such commission, and in consequence the whole of that sum will be available as working capital.

Negotiations are now proceeding for the settlement of the Russian liabilities, and, until such negotiations have reached a satisfactory stage, it will probably be unnecessary to make any call on the company's shares beyond the 6s. now paid up.

Negotiations are also in progress for the settlement of the remaining claims of the dissentient members of the old company. Claims were made in respect of 25,052 shares, of which 16,713 were preference and 8,339 ordinary. Claims have been settled in respect of 10,253 preference shares for an aggregate sum of £971 19s. 6d. and in respect of 7,979 ordinary shares for a nominal payment.

The directors have every reason to be satisfied with the management of the company's properties by the creditors' administration, which will continue until the claims of the Russian creditors are disposed of.

A resolution will be submitted to the statutory general meeting, authorising the directors to apply to the Russian Government for recognition of the company in accordance with the laws and constitution of the Russian Empire.

Many large and representative shareholders have expressed a desire that the exceptional and arduous services of the board, in connection with the formation of the company, should be suitably recognised, and notice has been given of a resolution.

In his notice calling the meeting, the Secretary—Mr. J. W. Creasser—states that a shareholder has given notice that he will move the following resolution:—"That the shareholders of the Baku Russian Petroleum Co. (1909), Ltd., desire to recognise the exceptional services rendered by the Board, and especially by the Chairman, Mr. Herbert Allen, in connection with the formation of the company in bringing to a successful issue, with great saving of expense, a difficult reconstruction, the proceedings in which extended over a period of two years; that there be and is hereby voted to the present directors a sum of 2,500 guineas; and that in order to admit of this payment being made, the remuneration of the directors for the present year be increased by a like sum."

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THE TIN PLATE MARKET.

Messrs. Norton, Owen & Co., of 4, Bishopsgate Street Within, London, E.C., report under date April 7th, 1910, as follows:—

The wages question in the South Wales coal field may now be considered settled. In the ballot on Wednesday the miners voted in an overwhelming majority in favour of accepting the terms offered by the coal owners, and it is expected that the new agreement, which practically ensures peace for a term of five years, will be signed in a few days.

The news has been received with much satisfaction in the tin plate trade, and the makers are looking forward to a period of renewed activity, as large orders have been held over during the uncertainty which has prevailed for some months. In view of the largely increased price of tin and the certainty of dearer coal in the immediate future tin plates are a very firm market, and we make prices of oil sizes to-day:—

IC	18¾ × 14	124 sheets	110 lbs.	13/9 to 13/10½ per box.
IC	19¼ × 14	120 ,,	110 ,,	13/9 ,, 13/10½ ,,
IC	20 × 10	225 ,,	156 ,,	19/3 ,, 19/4½ ,,

F.o.b. Wales. Tin lining and iron hooping extra.

The full Prospectus, which has been filed with the Registrar of Joint Stock Companies, states among other things that

The Subscription List opened on Thursday, the 7th day of April, 1910, and will close on or before Saturday, the 9th day of April, 1910, for Town, and Monday, the 11th day of April, 1910, for Country.

THE NEW ZEALAND OILFIELDS, LIMITED.

Incorporated under the Companies (Consolidation) Act, 1908.

CAPITAL £200,000

Divided into 2,000,000 Ordinary Shares of 2s. each,

OF WHICH

800,000 Shares are set apart for Working Capital, 700,000 Shares (including 500,000 Shares for Working Capital) have been underwritten in this issue and the remaining 300,000 for Working Capital will be reserved for future issue.

ISSUE OF 1,000,000 SHARES OF 2s. EACH,

WHICH ARE OFFERED AT PAR, PAYABLE AS FOLLOWS:

6d. per Share on Application, 6d. per Share on Allotment, and the balance of 1s. payable 6d. one month after allotment, and 6d. two months after allotment.

Directors.

Maj.-Gen. Sir Norman R. Stewart, Bart., C.B., 50, Birch Grove, Acton, W. (*Chairman.*)
Geo. Macdonald (Chairman, Standard Oil Company of Mexico, Limited), 560-2, Salisbury House, London, E.C.
E. M. Bovill (Director, Peel River Land and Mineral Company, Limited), Norcott Court, Berkhamsted.
F. R. de Bertodano (Managing Director F.I.A.T. Motor Cab Company, Limited), Holms Hill House, Barnet, Herts.

Bankers.

London City & Midland Bank, Limited, Threadneedle Street, London, E.C., and Branches.
Bank of New Zealand, Limited, 1, Queen Victoria Street, London, E.C.

Solicitors.

For the Company: Pakeman, Son & Read, 11, Ironmonger Lane, London, E.C.
For the Vendor Syndicate: Ernest Salaman & Company, 62, London Wall, London, E.C.

Brokers.

G. C. Howard, 16, Tokenhouse Yard and Stock Exchange, London, E.C.
Weir & Robertson, 7, Royal Bank Place and Stock Exchange, Glasgow, Scotland.
Eadon & Dutchman, 8, East Parade and Stock Exchange, Sheffield.

Auditors.

Franklin, Wild & Co., 22-26, Broad Street Avenue, London, E.C., Chartered Accountants.

Secretary and Registered Offices.

Arthur C. Turtle, 14-16, Cockspur Street, London, S.W.

PROSPECTUS.

This Company has been formed to develop Oil Concessions in New Zealand, and to acquire Forty-four Concessions, extending over a total area of some 147,900 acres or about 230 square miles, situate near Gisborne, Hawkes Bay District, on the East Coast of North Island in New Zealand, as shown upon the map accompanying this Prospectus.

The importance of the discovery of oil in sufficient quantities in British Possessions has lately been drawn attention to by the Press in general and as recently as March 4th, 1910, the **"Times"** published in a special article under **"Propects for Oil-fuel,"** from a correspondent, the statement "that the report that the Admiralty have made some large purchases of oil-fuel from certain of the Scottish Mineral Oil Companies and are about to buy more, has given a remarkable strength to the oil market and also to the market in Oil Company Shares."

The article goes on to state that:—

> **"The oil shale in New Zealand is also very rich, and New "Zealand has also deposits of liquid petroleum which are "being exploited."**

and concludes:—

> **"With Egypt and India at work and the rich deposits of "Australia and New Zealand properly utilized our course "abroad will be much simpler; but the point it may be well "to make clear now is that with 95 per cent. of the petroleum "of the world produced in foreign countries this country "cannot safely adopt oil as the sole steam-raising force in "the Royal Navy. It can be adopted in part, as the "Admiralty are now doing, and the day may come when "it can be adopted in full, but that day is yet far "distant. There is much, therefore, on this ground to be "said for developing all the petroleum resources within the "British Empire. And they are more numerous and richer "than the ordinary reader supposes."**

The properties, the subject of the Concessions proposed to be acquired, are situated in the Patutahi, Turanganui, Waikoku, Waimata, Waingaromia and Whangara Survey Districts in Cook County, Auckland Province, surrounding the town of Gisborne, North Island, New Zealand.

From their position it will be seen that the area is admirably situated with regard to accessibility, and the transport of the necessary plant required, whilst its nearness to the important town of Gisborne, situated upon the harbour of the same name, would ensure easy transport for the oil to the markets of the world.

The importance of the discovery of oil in New Zealand in commercial quantities, where the climate is too well known to need remark, and where a good market for the oil exists, can hardly be over estimated either to the country itself or to the British Empire. The Government of New Zealand is fully alive to its possibilities and has given notice that it is prepared to give a bonus of £6,250 to the first company producing 500,000 gallons of oil from wells sunk in the country.

The properties were visited and reported upon for the original vendors by Mr. Frank A. Rich, B.Sc., M.A.I.M.E., M.I.M.E., etc., who states:—

> "It may be said that usual associations and indications of "petroleum (such as oil, gas, saline and mud springs) occur "over a considerable extent of country, about 25 miles square "or 625 square miles, and that there is some evidence, as far "as my observations went, that these indications occur on the "axes of anticlinal folds, which lie somewhat in a N.E. and "S.W. direction. . . . . ."
>
> "It is certain that:—
>
> "1. The formations usually oil bearing are Silurian or "Tertiary.
>
> "2. The formation of the district under discussion is "Tertiary, and therefore one of the formations usually "containing the oil measures.
>
> "3. Oil springs exist in this district and therefore the "oil measures are beneath to supply this oil.
>
> "4. Saline, gas, and mud springs, the frequent asso"ciations and indicators of the oil measures, are numerous, "and confirmatory of the extension of the oil measures. . . . "It is almost certain that . . . . the oil measures "are extensive, as shown by the extent of country exhibit"ing these springs. . . . . It is very probable that "oil will be struck at any depth between 100 feet and "1,500 feet below surface, and probably never below "2,000 feet from surface, nor below 400 feet to 500 feet "below sea level."

The full Report of Mr. F. A. Rich may be seen at the Company's Office during business hours at any time before the closing of the lists.

A Memorandum on the Occurrence of Petroleum in the Hawkes Bay District, on the East Coast, North Island, New Zealand, has been prepared for this Company by Sir Boverton Redwood and his colleague, Mr. W. H. Dalton, dated the 16th March, 1910.

Mr. Rich, in his Report, quotes an authority upon the quality of the oil found in the Gisborne Field, who says:—

> "The oil sent from your district proves to be exceedingly "sweet, easily distilled and treated, furnishing an illuminating "oil of fine quality and high fire test, and the largest percentage "of the same of any oil I have ever seen; in fact, I can say it "is the very best sample of crude petroleum that I have ever "examined in an experience of 25 years."
>
> "The sample as received was 39° gravity and yielded as "follows:—

"Illuminating Oil	.. ..	94·60 per cent.
"Paraffin	.. .. ..	2·95 ,,
"Waste and Loss	.. ..	2·45 ,,
"Total	.. ..	100·00

> "Fire test was 190 degrees."
>
> "Should you obtain this quality of oil in paying quantities, "its fine natural qualities would enable you to refine the same "with works of exceedingly inexpensive construction."

RUSSIAN NOTES.

Natural Gas at Stavropol. In boring an artesian well on the property of Mr. Grube, an enormous pressure of gas developed, and quickly caught fire. There are indications of the land being highly petroliferous.

New Tariffs. The council of the Terski petroleum producers has entered a demand to the Russian Government to equalise the tariff on kerosene on the Grosny-Novorossisk line to the projected new tariff on the Baku-Batoum pipe line.

A New Pipe Line. -Messrs Akhverdoff and Co. are urging the administration to authorise them to construct a pipe line from the Grosny fields to the shores of the Caspian Sea, where they intend erecting a wharf for loading mazout on board vessels.

Photal.—Under this name a new distillate is intended to be exported abroad from Baku by way of the Transcaucasian Railway. Photal is of the same specific gravity as ordinary Russian illuminating oil, but of low flash of 21° to 28° C. The transport of photal from Baku to Batoum is allowed in ordinary tank waggons, but solely for export.

The Demand of the Warsaw Petroleum Dealers.—In connection with Messrs. Nobel's decision to bring oil to Warsaw by the waterway, the Warsaw petroleum firms are addressing the Government for a reduction of the railway tariff on petroleum from 50 copecs to 35 copecs per pood, as being their only way of salvation from the new competition.

Pipe Lines in the Kuban District.—We have already announced the fact that the Vladikavkas Railway and the Armavir-Tuapsiesk Co. have commenced the construction of a pipe line in the Kuban district. Now the Baku Black Sea Co have decided to lay down their own pipe line. The company have selected a suitable area of a length ef about 90 versts from the Apscheron station to the Enem station.

Messrs. Nobel Bros. An extraordinary meeting of the shareholders of Messrs. Nobel Bros. has approved the estimate for 1910. According to this the production will amount to 60,000,000 poods: 38,000,000 poods of crude oil will be bought from other producers. Twenty-four million poods of illuminating oil will be refined and 15,000,000 will be bought; of mazout 36,000,000 poods produced at the firms refineries and 34,500,000 poods will be bought. Of lubricating oils 13,000,000 poods, of solar oil 5,000,000 poods, and of benzine 1,000,000 poods will be produced in the refineries. The estimated income is 101,900,000 roubles and profit 3,500,000 roubles.

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Turkish and Other Markets – Much activity is shewn in conquering the markets of Turkey, Asia Minor and Bulgaria. In this latter country the Steaua Romana has established agencies in all principal towns, and is endeavouring to push Roumanian products into the most remote corners of the country.

ROUMANIAN NOTES.

Exports.—The exports, which until lately have been very active, are now feeble and cannot be expected to recuperate before another two months.

The Roumanian Petroleum Trade. The year 1909 closed with a profit of 74,646 francs on a capital of 1,250,000 francs. A dividend of 5 per cent. has been declared.

Steaua Romana. The directors of the Steaua Romana have decided to increase the capital of the company in view of its development. An extraordinary meeting of the shareholders has been fixed for the 19th of this month.

Stores.—The petroleum installations in Roumania are overloaded with stocks. Residuals at the end of February exceeded 166,000 tons. Exportation for the English Admiralty will commence during May or June.

Prices.—The prices of illuminating oil and other products are very weak owing to the acute competition on almost all the markets. In Germany especially, the fight between the Austrians and Americans has reduced the prices to an extraordinary low level.

Campina.—The production of the Steaua Romana is now at 750-800 tons per day. The well 140 at Gahitza has had a violent eruption, ejecting 3,000 tons of oil in 36 hours. The production of the Regatul Roman maintains at 100-120 tons, and that of Trajan at 30-40 tons per day.

A New Law for Encouragement of the Industry.—The project of a new law for the encouragement of the industry has evoked great discontent in all industrial circles. Imposing as it does many more obligations on the industrials than the old law, it accords them at the same time but very few and insignificant advantages.

A Modification of the Mining Law. -The Ministry of Industry and Commerce has entered into the chamber a project of modification of the law dealing with mines, according to which the present exemption of the petroleum producers from paying duty on imported materials necessary for petroleum exploitation will be modified. For instance, tubing necessary for boring will have to pay a duty of 20 francs per metre.

The Question of Nationality,—The new law divides the staff in five groups:- (1) technical staff, (2) administration, (3) foremen, (4) workpeople, (5) employed in the transport and distribution. The law provides that only 75 per cent. of all employed should be of Rounmanian nationality, with the exception of the administration staff, of which 50 per cent. must be of Roumanian nationality.

THE LIVERPOOL STORAGE CO., LTD.

Exceptional facilities for the storage of all kinds of . . .

PETROLEUM PRODUCTS in bulk and barrels.

OCEAN DEPOTS FOR PETROLEUM SPIRIT, LIQUID FUEL, ILLUMINATING OILS, LUBRICATING OILS & TURPENTINE,

Also for ROSIN, TAR, TALLOW, &c., &c.

Warehouse Receipts and Warrants accepted by all Banks.

The accommodation at all the Company's depots is upon the most up-to-date principles, while special facilities ar provided for forwarding of goods to all parts of the kingdom by rail, canal or steamer. Correspondence invited.

The General Manager, Peters' Buildings, 13, Rumford Street, LIVERPOOL.

Tel. Add.—"CASEMATES, LIVERPOOL."
" "WHARFINGER, MANCHESTER."

Telephones 1808 CENTRAL, LIVERPOOL.
" 3831 MANCHESTER

Telegraphic Address:
"LUBRAFOL,"
LONDON.

Telephones:
1222 AVENUE.
2682 CENTRAL.

LUBRICATING & FUEL OILS, LTD.,

101, LEADENHALL STREET, LONDON, E.C.

IMPORTERS AND DISTRIBUTORS OF

RUSSIAN, AMERICAN, GALICIAN, ROUMANIAN, etc., Mineral Lubricating Oils and Fuel Oils.

AGENTS:

Messrs. BRAMWELL, FERN & Co.,
Produce Exchange, Manchester,
and 16, Fenwick Street, Liverpool.

Mr. WILLIAM HOUSTON,
125, Buchanan Street, Glasgow.

Mr. RALPH THOMPSON,
26, Sandhill, Newcastle-on-Tyne.

Messrs. MUNSTER, SIMMS & Co.,
7, Albert Square, Belfast.

LANE & MACANDREW,

Cable Address—
"ROMANIC, LONDON."

26, Great St. Helens, London, E.C.

Oil Merchants and Brokers

Managers of the following Tank Steamers:

	Tons. Oil Capacity.		Tons. Oil Capacity.		Tons. Oil Capacity.
Pinna	**8,000**	**Caucasian**	**6,600**	**Luciline**	**5,200**
Danubian	**6,900**	**Lutetian**	**6,300**	**Le Coq**	**4,700**
Servian	**6,700**	**Terek**	**5,200**	**Rock Light**	**4,100**
Carpathian	**6.700**	**Balakani**	**5,200**	**Lux**	**2,900**
Roumanian	**6,700**	**Oriflamme**	**5,200**		

Brokers for Building, Purchasing,
Selling and Chartering **Oil Tank Steamers.**

LATEST QUOTATIONS OF PETROLEUM SHARES.

ENGLISH COMPANIES.

This list is restricted to companies who have paid dividends or who are producers.

Company.	Capital Paid Up.	Value of Shares.	Latest Prices.
Assam Oil	£310,000	£1	17/0-18/0
Bibi-Eybat Petroleum Co. ..	£380,000	£1	4/6-5/6
Californian Oilfields	£400,000	£1	$5\frac{7}{8}$-6
Commonwealth Oil Co. ..	£500,000 Pref.	£1	$\frac{3}{4}$-$\frac{7}{8}$
,, ,, ..	£225,000 Def.	£1	$\frac{5}{8}$-$\frac{3}{4}$
Lobitos Oilfields, Ltd. (£1) ..	£360,000	£1	36/0-37/0
Pacific Oilfields, Ltd. (£1) ..	£200,000	£1	25/0-26/0
Russian Pet. & Liquid Fuel ..	£500,000 $6\frac{1}{2}$% Pref.	£1	3/0-4/0
,, ,, ...	£600,000 Ord.	£1	3/0-4/0
Schibaieff Petroleum ..	£575,000 6% Pref.	£5	6/0-8/0
,, ,, ...	£575,000 Ord.	£1	1/0-2/0
Shell Transport & Trading ..	£2,300,000	£1	91/0-92/0
,, ,, ,, ..	£1,000,000 Pref.	£10	$11\frac{1}{8}$-$11\frac{3}{8}$
Spies Petroleum Company ..	£465,000	10s.	28/6-29/6

RUSSIAN COMPANIES.

Company.	Nom. Value in Roubles.	Latest Quotations. Lowest Roubles.	Latest Quotations. Highest Roubles.
Baku Naphtha Co.	100	331	350
,, ,, ,, (issue of 1908) fully pd.	100	341	343
Balakhany Naphtha Co.	250	—	—
Caspian Society	1,000	4,425	4,560
Mazout Co.	250	—	—
Melikoff, A. C.	250	—	—
Mirzoeff Bros.	250	—	—
Naftalan Co.	250	—	—
Naphtha Co. "Kavkas"	250	—	50
Naphtha Trading Co., A. I. Mantacheff & Co.	250	131	136
Neft Co.	250	—	75
Nobel Bros.	5,000	11,800	11,850
,, ,, ...	250	—	598
Rops and Co. V...	250	315	316
Russian Naphtha Co.	250	—	—
Society Mazout	250	—	400
Ter-Akopoff Co.	250	—	—
Tumaieff & Co., J. G.	250	96	—
Volga-Caspian Naphtha and Trading Co	250	—	—
,, ,, ,, (Second Issue)	250	—	—

SCOTCH COMPANIES

Supplied by Messrs. Maclean and Henderson, Stirling.

Company.	Capital Paid Up.	Value of Share.	Latest Prices.
Anglo-Persian Oil Co., Ltd., 6% Part Pref. (5s. paid)	£150,000	£1	6s. 0d.
Do. 5% Deb. Stock	£600,000	£100	£95 5s. 0d.
Broxburn Oil Co., Ltd., Ord. 17/- pd	£235,000	£1	£2 3s. 9d.
Do. 6% Cum. Pref. ..	£100,000	£10	£12 3s. 9d.
Burmah Oil, Ord.	£1,100,000	£1	£5 7s. 0d.
Do. Pref.	£250,000	£1	£1 7s. 6d.
Dalmeny Oil Co., Ord. (7 paid) ..	£37,800	£8 10s	£5 2s. 6d.
Do. 5% Pref. ..	£18,900	£7	£4 10s. 0d.
Oakbank Oil Co., Ltd., Ord.	£170,000	£1	£2 1s. 0d.
Do. Pref. (£1 paid)	£100,000	£1	£1 4s. 3d.
Pumpherston Min. Oil Co., Ld., Ord. (17s. paid)	£110,500	17s.	£9 2s. 6d.
Do. 6% Cum. Pref.	£100,000	£10	£13 0s. 0d.
Tarbrax Oil Co., Ltd. Ord. (£1 pd.)	£65,000	£1	£2 13s. 6d.
Do. 6% Cum. Pref.	£40,000	£1	£1 4s. 6d.
Young's Paraffin Co., Ltd., Ord. ..	£452,808	£4	£3 10s. 6d.
Do. "B" Deb...	£150,000	£100	£168 0s. 0d.

DUTCH COMPANIES.

Company.			Latest Quotations (per cent.)
Dordtsche Petroleum Industrie My.		Aand.	187
,, ,, ,, ..	Pref.	,,	$214\frac{3}{4}$
Int. Roum. Petroleum Maatschappij		,,	$25\frac{7}{8}$
Royal Dutch Petroleum Co.		,,	$521\frac{1}{2}$
Mœara Enim Petroleum Maatschappij ..		,,	$251\frac{1}{2}$
Oklahoma Petroleum Co.	Pref.	,,	$137\frac{3}{4}$
,, ,, ,, ...	Ord.	,,	$51\frac{1}{4}$
Perlak Petroleum Maatschappij		,,	$148\frac{1}{2}$
Sumatra Palembang Petroleum Maatschappij		,,	196
Zuid Perlak Petroleum Maatschappij ..	Pref.	,,	$181\frac{1}{2}$
Union Petroleum Co.		,,	96
Bibi-Eybat Petroleum Maatschappij		,,	$22\frac{1}{8}$
Russian Petroleum and Liquid Fuel Co. ..		,,	$18\frac{1}{2}$
,, ,, ,,	Pref.	,,	18
,, ,, ,,	(6% Debs.)	,,	$34\frac{1}{4}$
Schibaieff Petroleum Co. (Ord.)		,,	$5\frac{1}{2}$
,, ,, ...	Pref.	,,	$7\frac{1}{2}$
Shell Transport and Trading Co. ..	Ord.	,,	456
Tulsa Petroleum Co.		,,	100

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THE
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American Office: 150, Nassau Street, New York.

Saturday, April 9, 1910.

MAIKOP AND THE OIL BOOM.

THE coming into prominence of the prolific petroliferous region of Maikop, South Russia, has to a very great extent been responsible for the present boom in oil investments in this country, and if one is to form an opinion as to the near future, it appears almost certain that the newly-discovered oil field will more than any other in the world command the attention of British investors for a long time to come.

Petroleum enterprises, by reason of the vast fortunes made in them in the past, always have had a strange fascination for many investors, but we have no parallel on record with the present situation. The possibilities of Maikop have captivated the whole or nearly the whole of the investing world, and a glance at the English companies which have been registered during the past few months, and in the majority of cases gone to public subsciption, must of necessity impress one with the one plain fact that to-day the English investor pins his faith to Maikop as to no other field in the two hemispheres.

As we have recently said, our impression is that the interest at present displayed by the public in petroleum concerns will be intensified in the future, and the fact that something £2,500,000 of English capital has already gone, or is on the point of going to Maikop. speaks loud of the confidence which the new field has created in this country. Already many important companies have been formed in England for the purpose of exclusively operating in Maikop, while several others may at any day now come before the public gaze.

The registrations recorded during the past few months, and the nominal capital of each company will be found in the following table:—

London & Maikop Oil Corporation ..	£600,000
Maikop Oil Petroleum Producers, Ltd.	£425,000
Maikop Valley Oil Co., Ltd.	£400,000
Maikop & General Petroleum Trust, Ld.	£300,500
Black Sea Oil Fields, Ltd.	£300,000
Maikop Spies, Ltd.	£260,000
Maikop Oil Proprietary Co., Ltd. ..	£252,500
Anglo Maikop Corporation, Ltd. ..	£200,000
Maikop Midland Oilfields, Ltd. ..	£157,500
International Maikop, Ltd.	£83,000
Maikop Premier, Ltd.	£75,000
Maikop and Boring Concessions, Ld.	£50,000
Maikop Oil Fields Syndicate	£45,000
Maikop Alliance Syndicate	£31,500

From the above details one can clearly judge the great favour into which the Maikop field has leapt in the eyes of the British investor, and we on our part have every reason to believe that the hopes in the future of the new territory will be proved by developments to have been fully justified.

But in times of booms such as are now being experienced, one is sometimes inclined to take too many things for granted, and to proceed somewhat upon rather rash lines, and therefore there may be some slight excuse for the fact that plots in the Maikop region have been offered upon the English market, and also taken up, which have no legal standing as to rights. Dr. Dvorkovitz cabled from the Kuban Government seat a message the other day, which is reproduced elsewhere in this issue, and which treats very concisely with this phase of the subject. Therefore whatever acts of indiscretion have been committed recently on the part both of would be sellers of claims and English buyers, in view of the warning by Dr. Dvorkovitz, the future should be straight sailing.

For the information of our readers, we might here mention that the claims (zyafkas) which are granted in Maikop consist of about 100 acres, from which a final selection of about 27 acres has to be staked out, these latter plots being known as otvods, and it is upon each otvod that the owner is bound to sink a minimum of one boring, otherwise the plot reverts to the State either at the end of two or four years.

The question of the acquisition of Maikop claims is of such importance that we intend to refer to the subject at greater length in our next issue, as it is eseential that the greatest publicity should be given to this matter.

THE BRITISH-BORNEO PETROLEUM SYNDICATE. LTD.

An extraordinary general meeting of the shareholders of the British-Borneo Petroleum Syndicate, Ltd., was held yesterday (Friday) at noon at Winchester House, E.C., Sir William Hood Treacher taking the chair.

The meeting was called for the purpose of considering and if thought fit, of passing the following resolutions:—

> "That the name of the company be changed to The "British-Borneo and Burma Petroleum Syndicate, "Limited."
>
> "That the existing 29,000 Preference Shares of £1 "each be sub-divided into 58,000 Preference Shares "of Ten Shillings each, and that payments which "have been made in respect of each Preference "Share already issued shall be credited in equal "parts to the two new Shares, making such new "Shares Five Shillings paid."
>
> "That the capital of the company be increased to "£100,000 by the creation of 140,000 Preference "Shares of Ten Shillings each ranking in every "respect with the existing Preference Shares of the "company."

The Secretary (Mr. Hugh Limebeer) having read the notice convening the meeting,

The Chairman moved the adoption of the above-mentioned resolutions *en bloc*. In doing so he pointed out that in view of the company's circular of March 31st, the report by Mr. Chittenden, and the result of an analysis of their oil by Dr. Dvorkovitz, it was only necessary to summarise the company's present position. They held the sole concession to work the petroleum deposits in British North Borneo over an area of 31,000 square miles, and since October, 1908, they had been investigating that territory, and as a result had taken up 440 square miles. Their property was traversed by several oil belts, and two distinct classes of oil had been found, one being a volatile oil of high value and the other a natural liquid fuel. The former oil had been analysed by the well-known oil expert—Dr. Dvorkovitz—who reported that it was of very superior quality, being as rich as 30 per cent. in petrol and containing the large proportion of 36 per cent. of high grade illuminating oil, as well as 17 per cent. of spindle oil, with a residue of 15 per cent. of extremely high flash-point oil suitable for the manufacture of superior lubricants. Therefore, owing to its excellent quality the oil would find a ready market. Then they also possessed rights over oil lands in Burmah, where they had ten blocks of one square mile each in the Myingan district, six of which blocks adjoined those of the Burmah Oil Co. It was intended to proceed with the exploration of those oil lands simultaneously with the development of their oil properties in Borneo. The development of their properties was to be carried out under the personal direction of Mr. H. L. Chittenden, who for several years held the position of general manager on the Borneo fields of the Shell Transport and Trading Co., Ltd., in which capacity he was responsible for much of the development of the Shell's oil belt which had yielded such enormous returns. It was, therefore, in order to develop their properties upon an extensive scale, that it was proposed to raise an increased amount of working capital, and in moving the adoption of the three resolutions set out, he desired to assure the shareholders that their future was full of very great possibilities.

The resolutions were seconded by Mr. Murray Bell, and carried unanimously.

PETROLEUM ENTERPRISES NOW BEFORE THE PUBLIC.

THE NEW ZEALAND OILFIELDS, LTD

This company, which is capitalised at £200,000, is now issuing 1,000,000 shares of 2s. each, this being one-half of the capital which is all in ordinary 2s. shares. The company, as its title indicates, has been formed for the purpose of developing oil concessions in New Zealand, and acquiring 44 concessions covering an area of 230 square miles situate on the east coast of the north island in New Zealand.

The importance of the discovery of oil in commercial quantities in New Zealand cannot be over-estimated, and the New Zealand Government is so fully alive to the possibilities, that it has stated that it is prepared to give a bonus of £6,250 to the first company producing 500,000 gallons of oil from wells sunk in the country. The New Zealand Geological Survey in its departmental report issued a year or so ago point out that there are abundant surface indications of oil in the areas taken over by the company as shewn by natural petroleum springs and by petroleum seepage in the test pits, while several petroleum experts have given most favourable reports upon the prospects of securing a large production of crude oil from the area embraced. The chairman of the company is Major-General Sir Norman R. Stewart, Bart., while the directors are Mr. George Macdonald (Chairman of the Standard Oil Co., of Mexico, Ltd.—a gentleman who has been the means of directing public attention to colonial oil prospects), Mr. E. M. Bovill, and Mr. F. R. de Bertodano.

BRITISH ROUMANIAN OIL COMPANY, LIMITED.

This company, whose subscription lists close to-day, has a capital of £200,000, of which one-half are now being offered to the public. The company has acquired nearly 2,000 acres of oil territory in Roumania, and the policy will be not only to increase the existing output from the properties taken over, but to develop the more promising of their further large areas. Of the whole of the area acquired, about 44 acres is now producing, this being situated in the Bustenari, Tintea and Pacuretz fields. Mr. Lewis Hamilton, a gentleman well known in the Roumanian petroleum industry, has reported upon the territory selected, as also have Messrs. Thompson and Hunter, of London, and both authorities agree that the land acquired is very valuable and capable of yielding large quantities of petroleum. The directorate is particularly strong, the members being Sir Henry A. Blake, G.C.M.G. (chairman of the Newfoundland Oilfields, Ltd.), Mr. F. S. E. Drury (chairman of the Maikop Oil Proprietary Co., Ltd.), Mr. Lewis Hamilton, J.P. (London and Campina), Mr. William Smellie (Messrs. Meade-King, Robinson and Co., Liverpool), and Mr. Thomas F. Wilson, M.P. (Glasgow).

NEWFOUNDLAND OILFIELDS, LIMITED.

This company, with a capital of £200,000, went to public issue last week with 20,000 shares of £1 each. The company has been formed to acquire oil-bearing properties having a total area of seventy square miles, situated on tide water at and around Parsons' Pond on the north-west coast of Newfoundland, and to develop the same. The reports forwarded with the prospectus point out that about ten square miles of the territory immediately adjoining Parsons' Pond has already been proved to be oil-bearing, and can soon be established on a basis of regular production, while the remaining sixty square miles surround this area. Inasmuch as the working of so large a territory will possibly be found beyond the scope of the company, it is suggested that subsidiary companies may have of necessity to be established. Sir Henry Blake, G.C.M.G., Mr. J. Allen Baker, J.P., M.P., Sir Thomas Barclay, M.P., The Hon. Lionel Holland, Mr. William Smellie (Messrs. Meade, King, Robinson and Co.), and Sir James Winter, K.C.M.G., K.C., are the directors of the company.

PREMIER OIL AND PIPE LINE COMPANY, LTD.

This company with a nominal capital of £330,000 has issued the whole of its stock to the public during the present week. It has been formed to acquire from the Premier Petroleum Co., Ltd., the whole of the share capital of the Austrian Company Die Premier Petroleum A.G., which holds the leases of over 52 acres in the oil fields of Galicia, the property being situated in the well-known district of Tustanowice. The development of the property appears to have been steadily continued since the inception of the company in 1908, five wells having been sunk, three of which are now producing, and these during the six months ended January last yielded an average of 5,500 tons per month. The fourth well has periodically spouted, while the fifth is at present being bored. The new company also acquires a pipe line by means of which the oil produced is transported to the Boryslaw railway station, a distance of about two miles. According to the report of the mining engineer, Mr. P. Miaczynski, there is room upon the property acquired for twenty-five more wells. The new company commences its operations with a working capital of £50,000. Its directors are Messrs. E. T. Boxall, C. Rozenraad, E. Fuckshalg, Albert van den Bergh, and Henry van den Bergh. The registered offices of the company are at Eldon Street House, Eldon Street, E.C.

THE MAIKOP VALLEY OIL COMPANY, LIMITED.

This recently registered company, with a capital of £400,000, yesterday issued 100,000 of its seven per cent. participating preference shares. The company is to acquire and operate 28 plots in the Maikop field, the purchase consideration for which is £29,400 in cash and 118,000 in shares, the properties being purchased from the Anglo-Maikop Corporation, Ltd., through the Maikop and General Petroleum Trust.

NEW ENGLISH OIL COMPANIES.

MAIKOP OIL PETROLEUM PRODUCERS.

Registered on March 24th, with a capital of £425,000 in £1 shares. The objects of the company are to acquire oil, petroleum, and mineral-bearing lands and claims and options over oil and petroleum producing and mineral properties in the Russian Empire and elsewhere, and to adopt an agreement with the Maikop and General Petroleum Trust, Ltd. The signatories are:—C. L. King, The Woodlands, Ashtead, Surrey; E. P. Blackman, 35, Erlanger Road, New Cross Gate, S.E.; H. G. Goddard, 30, Osborne Road, Stroud Green, N.; W. F. Aldous, 84, Hollydale Road, Peckham, S.E.; M. J. Spyer, Holmedale, Church Crescent, Finchley, N.; E. Royston, 20, Cornwall Road, Twickenham; H. Owen, Glanavon, New River Crescent, Palmers Green, N. (one share each). Minimum subscription, £50,000. First directors (not less than three nor more than seven) to be appointed by signatories. 100 shares.

PACIFIC AND ORIENT OIL COMPANY.

This company was registered on March 24th, with a capital of £1,500,000, in shares of £1 each (500,000 preference). The objects of the company are to carry on, in the Republic of Ecuador or elsewhere, the business of producers, refiners, storers, suppliers, and distributors of petroleum and other oils. Agreement with the British Ecuador Syndicate, Ltd., and C. G. Dunne. The signatories are:—S. B. Frost, Hazeleigh Hall, Maldon; J. Steinemann, Finsbury Pavement House, E.C.; F. J. Riddell, Finsbury Pavement House, E.C.; P. F. Stevens, Finsbury Pavement House, E.C.; E. T. Church, 39, Hetherington Road, Clapham; H. W. Brown, 41, Mackenzie Road, Beckenham; T. Winter, Northcote, Sidney Road, Beckenham (one share each). Minimum subscription, seven shares. First directors not less than three nor more than 11) to be appointed by signatories. £500. £500 each per annum (chairman £750) and 5 per cent. of the net profits remaining after 10 per cent. dividend is paid, divisible.

NEWFOUNDLAND OILFIELDS.

Registered on March 24th, with a capital of £200,000 in £1 shares. The objects are to carry on the business of dealers in and refiners of mineral oils and the products thereof, etc. The signatories are:—T. H. Nerlan, 156, Clarence Road, Wimbledon; A. E. Ledbury, 31, Cavie Road, Walthamstow; A. J. Adams, 9, Fleming Road, Kennington Park, S.E.; H. C. Duncan, 72, Oakfield Road, Stroud Green, N.; H. C. Page, 8, Pancras Lane, E.C.; M. B. Blake, 10, Duke Street, St. James, S.W.; F. O'Leary, 39, Drakefield Road, Balham, S.W. First directors (not less than two nor more than seven) to be appointed by signatories.

LONDON AND MAIKOP OIL CORPORATION.

This company was incorporated on March 24th, with a nominal capital of £600,000 in £1 shares, the objects being to acquire and work any property containing, or supposed to contain, petroleum or other oils, shale, coal, lignite, asphalt, naphthagill, etc., and to adopt an agreement with the Maikop Oil Fields Syndicate, Ltd. The signatories are:—F. C. Heley, St. Johns, Goulton Road, Clapton, N.E.; W. H. Nicholson, 144, Lansdown Road, Tottenham; L. G. Romer, 108, Dalston Lane, N.E.; A. Whittard, Ravensthorpe, Potters Bar; L. E. Lawton, 5, Burton Street, W.C.; B. P. Bell, 13, Uxbridge Road, Surbiton; H. Byers, 10, Milton Avenue, Highgate, N. Minimum subscription, 163,500 shares. First directors (not less than two nor more than five) to be appointed by signatories.

PARAFFIN SCALE IN GROSNY PETROLEUM.

In the current issue of the *Chemische Revue*, Prof Kharitschkoff publishes the results obtained by him in the distillation of various samples of Grosny petroleum rich in paraffin. One of the samples taken from a well of the Kartchky's Syndicate, in the west of the field, gave the following results:—

	Per Cent.	Sp. Gr.
Up to 100° C.	0	—
100 ,, 125° C.	2	0·710
125 ,, 150° C.	4·5	0·740
150 ,, 210° C.	23·05	0·793
Residue	68·35	0·892

The low gravity of the distillates is very characteristic of this class of oil, shewing them to be veritable paraffin oils. And indeed, Kharitschkoff has found the oil to contain 18 per cent. of soft paraffin and 10 per cent. of hard paraffin of high melting point.

◆

PETROLEUM IN TRINIDAD.

A circular has been issued by the Petroleum Options setting forth details of the enterprise, and stating that the syndicate has secured the benefit of a Government license to prospect and drill for oil in the Island of Trinidad for two years from November last. The circular gives extracts from the reports of the Government geologist of Trinidad, Mr. Cunningham Craig, as to the oil bearing strata in the island. The syndicate proposes to drill three wells to an aggregate depth of 2,500 ft., with the view, if the operations prove successful, of forming a larger company later.

◆

PRODUCTION OF ENGLISH COMPANIES IN RUSSIA.

Baku Russian Petroleum Co., Ltd.—The production for the week ended March 12th was 145,350 poods; and for the week ended March 19th was 142,750 poods. These figures are exclusive of oil produced from plots leased off.

Russian Petroleum and Liquid Fuel Co., Ltd.—The production for the week ended March 26th was 142,000 poods, or 2,289 tons; and for the week ended April 2nd was 144,000 poods, or 2,322 tons.

Spies Petroleum Co., Ltd.—The production for the week ended March 27th was 300,005 poods, or about 4,839 tons. The total production for the year to March 27th was 3,336,475 poods, or about 53,814 tons. The total production for the corresponding period last year was 2,691,610 poods, or about 43,413 tons. The production for the week ended April 3rd was 310,395 poods, or about 5,006 tons. The total production for the year to April 3rd was 3,646,870 poods, or about 58,820 tons. The total production for the corresponding period last year was 2,913,165 poods, or about 46,986 tons.

The European Petroleum Co., Ltd.—The production for the week ended March 27th was 120,204 poods, or 1,958 tons; and for the week ended April 3rd was 116,966 poods, or 1,886 tons.

THE NATURAL HYDROCARBONS OF PETROLEUM.

By MR. FRANK WIGGLESWORTH CLARKE.

Probably no subject in geochemistry has been more discussed than that of the origin of petroleum. Theory after theory has been proposed, and controversy is still active. The evidence is abundant but contradictory, and leads to different conclusions when studied from different points of view.

The theories so far advanced may be divided into two categories—the inorganic and the organic. Let us examine the hypotheses separately. The earlier speculations connecting the formation of petroleum with volcanic phenomena may be passed over, for the reason that they were framed at a time when essential evidence was not available. They were speculations, nothing more. The modern era begins with a memoir by M. Berthelot, published in 1866.

Berthelot started from a supposition of Daubree that the interior of the earth might contain free alkaline metals. Upon these, as Berthelot had previously shewn, carbon dioxide could react at high temperatures, forming acetylides from which, with water, acetylene would be generated, with all of its possibities of condensation into higher hydrocarbons. The weak point of the hypothesis, which Berthelot only advances tentatively, is that no evidence exists to shew that the alkaline metals are present in an uncombined state at any point below the surface of the earth. The starting point is a pure assumption, which is more likely to be erroneous than true.

Leaving out of account the oft-cited paper by H. Byasson, which has no present value, we come next to the famous carbide theory of D. Mendelaief, published in 1877. This theory presupposes the existence of iron carbides within the earth, to which percolating waters gain access, generating hydrocarbons. If such carbides exist at reasonable depths below the surface of the earth, the suggested reactions would presumably take place; but the major premise is as yet unproved. The actual existence of the carbides in nature remains to be demonstrated.

Mendelaief's hypothesis naturally attracted much attention and was rendered plausible by researches like those of Hahn, Williams and Cloez upon the production of hydrocarbons from cast iron. It was still further strengthened by the discoveries of Moissan, in his development of the electric furnace, and has had many advocates. Moissan himself has adopted it, and also suggested that volcanic explosions may perhaps be caused by the action of water upon subterranean carbides. He admits, however, that some petroleums are possibly of organic origin. The presence of marsh gas in volcanic emanations may be cited in support of Moissan's suppositions, but this well recognised fact can be interpreted otherwise. Another favourable datum has been furnished by O. Silvestri, who found in basaltic lavas from near Etna both liquid oils and a solid paraffin which melted at 56 degrees. These hydrocarbons, as well as the marsh gas, may conceivably have been formed either through a direct union of carbon and hydrogen or from material distilled by volcanic heat out of adjacent sedimentary rocks. None of the possible hypotheses to account for their origin is definitely conclusive.

Two other speculations upon the genesis of petroleum from inorganic matter remain to be mentioned, if only for the sake of completeness. N. V. Sokoloff, in 1890, argued that the bitumens are of cosmic origin, formed initially during the consolidation of the planet, inclosed within the primeval magma, and since emitted from the earth's interior. In support of this conception he cites the occasional finding of hydrocarbons in meteorites, cases in which the possibility of an organic origin seems to be absolutely excluded.

The other speculation is that of O. C. D. Ross, who has tried to shew that petroleum may originate from the action of solfataric gases upon limestones. Ross wrote various chemical equations to shew how the reactions might occur, but they are improbable and experimentally unverified.

It will be seen, upon consideration, that these inorganic theories concerning the origin of petroleum relate not only to its proximate genesis, but to fundamental questions of cosmology. Sokoloff's hypothesis is an indication of this fact, and the assumption of carbides within the earth represents an effort in the same direction. An illustration of this implication is to be found in Lenicque's remarkable memoir. If the molten globe had at any time a temperature like that of the electric furnace, carbides, silicides, nitrades, etc., would be among the earliest compounds to form, and oxidation could not begin until later. Under such conditions some carbides might remain unoxidised through many geologic ages, to be reached by percolating waters at the present day.

The development of hydrocarbons would then inevitably follow, although to what extent they might be subsequently consumed no one can say. The theory is plausible, but is it capable of proof? Furthermore, does it account for any accumulations of petroleum such as yield the commercial oils of to-day? These essential questions are too often overlooked, and yet they are the main points at issue. We may admit that hydrocarbons are formed within volcanoes, but the quantities traceable to such a source are altogether insignificant. Bitumens occur in small amounts in many igneous rocks, but never in large volume. They are, moreover, absent, at least in significant proportions, from the Archean, and first appear abundantly in Paleozoic time. From the Silurian upward they are plentiful, and commonly remote from great indications of volcanic activity. Even such an occurrence as that of the Pitch Lake in Trinidad, where asphalt is associated with thermal waters, does not necessarily imply a community of origin. It is at least conceivable that the solfataric springs may have acted upon sedimentary accumulations of oil, partly by vapourising the latter and so bringing it to the surface, and partly by effecting, with the aid of steam and sulphur, the condensations of polymerisations that are observed. These considerations serve to shew the need of great caution in dealing with this class of problems and to warn us against hasty generalisations. Speculations based upon individual occurrences of petroleum are of very little value. The entire field, in all of its complexity, must be taken into account.

Admitting that methane is sometimes formed as a volcanic emanation, we must also recognise the fact that it is more commonly of organic origin. Its popular name, "marsh gas," is verbal evidence of its derivation from decaying vegetation. Ordinarily it is generated in apparently small amounts, but gas in Iowa wells has been described which occurs in the drift, and seems to be of vegetable origin. Buried vegetation alone can account for its development under the observed conditions.

Apart from the natural occurrences of marsh gas, either in swamps or as the "fire damp" of coal mines, its artificial production has been studied experimentally. Messrs. F. Hoppe-Seyler and H. Tappeiner have shewn that it is formed by the fermentation of cellulose, together with carbon dioxide and free hydrogen. During the decay of seaweeds, however, according to Mr. F. C. Phillips, a little methane is at first evolved, the generated gases consisting largely of carbon dioxide, hydrogen, and nitrogen. The apparatus in which the experiment was performed was allowed to stand in position for two and a-half years, and during that time, following the first rapid revolution of gas, a very slow continuous production was observed. At the end of the period the gas consisted of methane. Phillips concludes, from this evidence, that buried vegetable matter, after a brief era of rapid gas evolution, may pass into a condition of extremely slow decay when methane is generated. It is possible, however, that methane is not the only hydrocarbon thus produced.

From data of this kind, and from the experiments cited in the preceding section of this chapter, it is evident that hydrocarbons analogous to natural gas, petroleums and asphalt may be derived either from animal or vegetable matter, or from both. This, I think, admits of no dispute, but argument is possible relative to the genesis of the larger accumulations of mineral oil. Engler's researches have led to a widespread belief in the animal origin of petroleum, although the details of the transformation process are very diversely interpreted. Engler himself ascribes the derivation of petroleum from animal remains to a putrefactive process, which removes the nitrogen compounds. The fats remain, to be altered by heat and pressure into hydrocarbons, whose boiling points lie below 300 degrees; and these later undergo a partial autopolymerisation into denser forms. How far such a polymerisation may be possible, if indeed it is possible at all, is a matter of uncertainty. C. F. Mabery holds that the changes are always in the opposite direction and that the more complex hydrocarbons are formed first, partially breaking down afterwards into lower members of the series. J. Marcusson holds the same view. The putrefactive removal of the albuminoid substances is also to be questioned, and it is certainly not universal. The nitrogen bases of California petroleum furnish perhaps the strongest evidence that the proteids contribute their share to the make-up of petroleum, and shew also that these particular oils are of animal origin.

Several other writers have brought evidence to bear in favour of the derivation of petroleum from fish remains. Dieulafait observed that the copper shales of Mansfield are strongly impregnated with bitumen, and also rich in fossil fish. The petroleum of Galicia is always associated with menilitic schists, in which fish remains are peculiarly abundant. C. Engler cites some computations by Szajnocha, to the effect that the annual catch of herring on the north coast of Germany would, if its fats were half converted into petroleum, yield in 2,560 years as much oil as Galicia has produced. G. A. Bertels, on the other hand, attributes the Caucasian petroleums to the decomposition of mollusks. In the Kuban district, the oil, accompanied by salt water, exudes directly from beds of molluscan remains, which occur in enormous quantities.

(To be concluded.)

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THE ASSOCIATED OIL COMPANY OF CALIFORNIA.

A general meeting of the shareholders of the Associated Oil Co., which is such an important factor now in the Californian fields, was held last month in the Kern River field, and after its adjournment, by the same persons, annual meetings of the West Coast and Amalgamated Oil companies, presided over by Mr. W. F. Herrin, one of the new vice-presidents of the Southern Pacific.

The information afforded from the voluminous report by the reading of excerpts by Mr. W. S. Porter, vice-president and general manager of the Associated Oil Co., is summed up by the *California Oil World* as follows:—"The company last year earned a total of $15,420,830·87, which sum consists of $13,895,260·76 earnings of the company proper, and $1,525,570·11 dividends from affiliated companies. Disbursements for transportation, administration, purchasing of oil and other expenses, including interest, were $12,541,213·64, and depreciation was estimated at $711,000. These two sums make a total debit of $13,252,213·64, and there is left $2,168,617·23 in profits."

Officials and directors, chosen a few weeks ago and re-elected, are as follows:—W. F. Herrin, president; W. S. Porter, first vice-president; W. S. Porter, second vice-president and general manager; Paul Shoup, second vice-president; O. Scribner, secretary and assistant manager; W. A. Sloan, treasurer; F. L. Bruce, assistant secretary; R. P. Schwerin, C. B. Anderson, J. C. Kirkpatrick, Burton E. Green, Frank H. Buck, Rudolph Herrold, jun., E. T. Dumble, geologist, and Henry Ach, company attorney.

The report revealed that the company had bought a new 60,000-barrel tank ship, now being built at Newport News and to arrive on the Californian coast about June 1st, as well as an oil barge for use in San Francisco Bay in making deliveries to vessels burning oil. That it has completed its pipe line from Port Costa to Coalinga, 189 miles, is installing an extension to McKittrick, 72 miles, and will run the line into the Midway and Sunset fields, 30 miles further.

The first big move of the Associated after the Southern Pacific took control, was to borrow $8,500,000, the second, to launch a $25,000,000 refunding bond issue, and the third to buy the entire assets and dissolve three of its subsidiary companies bought by the Associated five years ago, to wit: the Coalinga Oil Transportation Co., the National Oil and Transportation Co., and the Pacific Oil and Transportation Co., to be followed it is assumed by the absorption of the Amalgamated and West Coast Oil Companies, the listing of the stock in New York.

◆

THE NET PROFITS OF STANDARD OIL.

According to the Boston News Bureau, the net profits of Standard Oil from its 125 subsidiary companies, has averaged close to $80,000,000 a year since 1906, of which $40,000,000 a year went into dividends, which means in round numbers an addition of $200,000,000 to the earnings during the last four years, its gross assets being reported at $371,664,631 and $359,400,000 net, making a total asset above the $500,000,000 mark, or $530 a share on the stock. The Bureau states, "it is the purpose of the Standard Oil Co. to publish complete periodical statements so soon as it has freed itself from liquidation. That the capital stock will be increased from $100,000,000 to $500,000,000 or $600,000,000, thereby bringing it closer to the intrinsic value, is well understood.

In respect to an adverse decision by the Supreme Court of the United States, which would force a sale of subsidiary companies and mean a heavy loss with total disintegration of the company, it is further stated "that Standard Oil interests contend their chances for victory are good. An adverse decision will naturally clog the well-balanced machinery, which has been running with clock-like precision for years."

The following table gives gross and net assets and bills payable of the Standard over a series of years, 1907-8-9-10 being estimated:—

	Gross Assets. $	Net Assets. $	Bills Payable. $
1910	530,000,000	—	—
1909	490,000,000	—	—
1908	450,000,000	—	—
1907	410,000,000	—	—
1906	371,664,531	359,400,193	12,264,338
1905	337,198,105	315,613,261	21,264,338
1904	303,167,225	297,489,225	5,678,000
1903	275,949,794	270,217,921	5,731,863
1902	235,445,822	231,758,405	3,687,417
1901	214,764,856	210,997,006	3,767,859
1900	209,140,331	205,480,449	3,659,882
1889	200,791,623	196,220,017	4,517,806

CLASSIFIED IMPORTS INTO UNITED KINGDOM UP TO APRIL 4th, 1910.

IN GALLONS.

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Country.	Illuminating.		Lubricating.		Residuals.		Gas Oil. (Solar)		Benzine.		Fuel Oil.		Other Descriptions.		Totals.	
	Since Mar. 19.	From Jan. 1.	Since Mar. 19.	From Jan. 1.	Since Mar. 19.	From Jan. 1.	Since Mar. 19.	From Jan. 1.	Since Mar. 19.	From Jan. 1.	Since Mar. 19.	From Jan. 1.	Since Mar. 19.	From Jan. 1.	Since Mar. 19.	From Jan. 1.
Austria ...	—	—	2,000	41,900	—	—	—	—	—	—	—	—	—	—	2,000	41,900
Belgium ...	—	—	25,040	136,460	—	—	—	—	—	—	—	—	500	2,300	25,540	138,760
Canada ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dutch India.	—	—	—	—	—	—	—	—	2,586,790	6,420,660	—	—	2,730	2,730	2,589,520	6,423,390
Germany ...	49,730	270,790	69,950	324,500	—	2,000	—	—	—	—	—	4,840	—	3,200	119,680	605,330
Holland ...	—	530	240	1,360	—	—	—	—	—	420,150	—	—	59,000	113,710	59,240	535,750
Roumania ...	—	2,704,070	—	—	—	134,750	—	—	—	950,400	—	—	—	—	—	3,789,220
Russia ...	1,874,270	3,752,630	322,660	1,932,720	115,200	115,200	—	—	693,660	700,810	—	—	—	240	3,005,790	6,501,610
U.S.A. ...	5,059,430	20,755,610	1,354,820	10,807,890	5 430	49,930	1,199,510	14,659,840	395,520	5,525,480	—	1,737,200	42,230	127,420	8,056,940	53,663,370
Other Countries	—	480,270	600	8,960	--	—	—	—	—	194,970	—	100	—	1,600	600	685,900
	6,983,430	27,963,900	1,775,310	13,253,790	120,630	301,880	1,199,510	14,659,840	3.675,970	14,212,480	—	1,742,140	104,460	251,200	13,859,310	72,385,230

The Roumanian Petroleum Export Trade.

STATISTICS FOR 1909.

The following table shews the quantities of petroleum products exported during 1909 in comparison with the years 1908 and 1907:—

	1909. Tons.	1908. Tons.	1907. Tons.
Crude, Gas Oil, etc.	49,715	78,765	78,423
Illuminating	261,637	263,633	262,489
Benzine..	108,218	122,860	89,522
Paraffin..	545	187	151
Total	420,115	465,445	430,585

The petroleum exports during 1909 thus decreased by 45,000 tons, or about 10 per cent., as against those for 1908, notwithstanding that the production of crude oil during the same period increased by 13 per cent. The decrease is explained first by a considerable increase in the production of crude, much poorer in distillates and containing a much larger percentage of residuals, and, by the acute competition which has taken place on the various foreign markets.

The quantity of exported illuminating oil has but slightly decreased, namely, from 263,633 tons in 1908 to 261,637 tons in 1909, or by 2,000 tons. The quantity of exported crude, gas oil, etc., however, shews a great reduction, namely, that of 29,000 tons, and the exports of benzine have diminished by 15,000 tons. As regards crude oil, this decrease is due to the fact that the Hungarian refineries, supplied before from Roumania, have in 1909 drawn their supply from Galicia. At the same time the English supplies of Roumanian gas oil have been largely replaced by gas oil imported from Texas.

With regard to the countries which during 1909 imported Roumanian products the first place is occupied by France with 134,512 tons, as against 119,365 tons in 1908 and 113,968 tons in 1907.

Next comes England with 70,864 tons in 1909, as against 109,189 tons in 1908 and 67,575 tons in 1907. Egypt is in the third place with 65,315 tons, as against 79,975 tons in 1908; then Turkey, 37,147 tons (32,568 tons in 1908 and 27,587 tons in 1907); Italy, 29,152 tons (21,549 tons and 21,466 tons in 1908 and 1907); Belgium 28,817 tons; Germany 23,810 tons (against 34,109 tons in 1908 and 48,381 tons in 1907).

The following table shews the percentage of the imports of each country in the total Roumanian exports:—

	1909.	1908.	1907.
France..	32·0	25·6	26·5
England	16·8	23·4	15·0
Egypt	15·8	17·1	5·0
Turkey	8·8	7·0	5·7
Italy	6·9	4·6	5·0
Belgium	6·8	4·0	7·7
Germany	5·6	7·3	11·2
Norway	2·5	1·4	1·2
Holland	2·1	3·4	2·5
India	—	3·4	13·5
Other Countries	2·7	2·8	6·7

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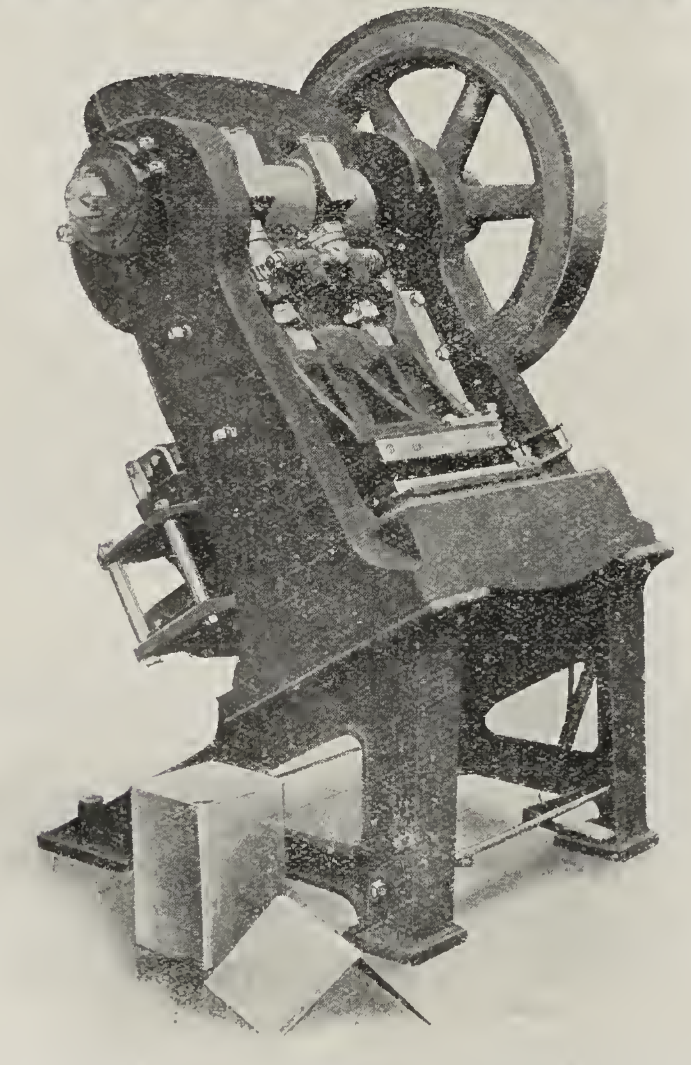

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The American Oil Market.

New York, Week ended March 26th.

The prevalence of more favourable conditions throughout the Eastern petroleum fields has induced a resumption of drilling operations, and returns for the week indicate a material gain in completions and a more than proportionate increase in new production. Much encouragement has been expressed over the recent advance in the Oklahoma product, and operators, confident that the crude market will reflect similar improvement in other fields, will undoubtedly find more of an incentive in the prosecution of their season's campaign. In the high grade fields West Virginia has taken a decided lead and some results of a stimulating character have been experienced. There is probably no other section in the Eastern fields which offers the same inducement for work of a wildcat order as West Virginia. Roane and Lincoln counties are the most active in the State, but the best oil completions of the week were encountered in Ritchie county, five of the six wells brought in being credited with a daily total of 580 barrels. Interest in the Shinnston pool of Harrison county continues to abate, as the outside tests condemn the prospects for any extension of the producing limits and the defined territory has been so thoroughly exploited that there is little to encourage drilling there. The output of the pool therefore shews a marked decline, a late report giving as less than 3,000 barrels a day, against 17,000 barrels as the high level several months ago. Several gas wells of exceptional capacity have been drilled in West Virginia, one in Marion county being estimated at 13,000,000 cubic feet, and one in Roane county at 10,000,000 cubic feet.

Our mid-continent field correspondent, says the *Oil, Paint and Drug Reporter*, writes encouragingly of conditions there and is confident that the advances previously noted will be followed by others, as the outlet is steadily increasing and the production declining. The principal operating company in the field will have its pipe line to the Gulf coast completed in the near future, through which medium large quantities of crude will find a market. Other systems to tide water are being planned. In addition there is a growing demand by the railroads for fuel oil. The more favourable sentiment throughout the field has begun to prompt keener interest in development work, and if a wild campaign of drilling operations were to result in the opening of a new pool of consequence or in the material increase in the production of the older fields, the hopeful expectations might be doomed to disappointment. Of principal interest in Gulf coast developments is the bringing in of a well that was reported to mark a two-line extension of the Caddo field of Louisiana into Marion county, Texas. The well was said to have produced at the rate of 100 barrels an hour, the oil being of a forty-four gravity. Advices from California report the most intense excitement at Sunset-Midway, which gives promise of being one of the greatest oil fields ever discovered.

Refined and Products.—The settlement of the tariff imbroglio which threatened the trade relations of this country and France has been the subject of leading consideration in the local market for refined during the week, and the resumption of business with France, which for the last six months has been in abeyance under the enforcement of the maximum rates against American importations, has influenced a more favourable market sentiment. Contributing to the same end have been some of the recent developments affecting crude. It is significant that more charter engagements have been closed during the week than for a considerable period. These involved 350,000 cases for May shipment to the Far East, 150,000 cases for Japan, April, 130,000 cases for Australia, and 130,000 cases for South America, all New York loading.

CLOSING QUOTATIONS.

CRUDE AT THE WELLS.

The quotations for oil represented by credit balances were:—

	Week ended Mar. 26. 1909.	Week ended Mar. 26. 1910.
Pennsylvania	$1·78	$1·40
North Lima	1·04	0·84
South Lima	0·99	0·79
Indiana	0·99	0·79
Illinois, heavy, below 30 deg.	0·60	0 52
Kansas and Indian Ter., 30 deg. and above	0 41	0·38
Heavy	0·28	0·40
Humble, Tex.	0·53	0·75
Saratoga	0·53	0·75
Sour Lake, Tex.	0·53	0·77
Jennings, La.	0·55	0·54
CANADIAN OIL:—		
Petrolia	1·44	1·24
Oil Springs, less pipeage	1·51	1·31

REFINED—FOR EXPORT.

In cents.		Week ended Mar. 26. S.W. 110 test.	W.W. 150 test.
Barrels, cargo	per gal.	7·90	@ 9·40
Philadelphia		7·90	@ 9·40
Bulk, New York		4·40	@ 5·90
Bulk, Philadelphia		4·40	@ 5·90
Cases, New York		10·30	@11·80
Cases Philadelphia		10 30	@11·80

REFINED IN CASES—110 FIRE TEST.

	Week ended Mar. 19. 1910.	Mar. 26. 1910.
3,000 to 10,000	10·45	10·45
1,000 to 3,000	10·50	10·50

REFINED—JOBBING LOTS.
In barrels, pkgs. included.

	Week ended Mar. 19.	Mar. 26.
130 fire test, S.W.	11¼	11¼
150 fire test, W.W.	11¾	11¾
In bulk from tanks	8½	8½

NAPHTHA AND GASOLENE.

	Week ended Mar. 19.	Mar. 26.
Naphtha, V. M. and P. deod.	12	12
Gasolene, 86 deg.	22¾	22¾

Pennsylvanian Oil Runs from March 17th to March 22nd, were:—March 17th, 179,473*; March 18th and 19th 139,826; March 20th, 97,293*; March 21st, 316,714*; March 22nd, 117,221.

The Deliveries of Pennsylvanian Oil from March 18th to March 23rd were:—March 18th, 211,894*; March 19th and 20th, 364,120; March 21st, 180,187*; March 22nd, 227,756*; and March 23rd, 188,644*.

* Includes Illinois Oil.

CLEARANCES FOR THE WEEK.

During the week ended Mar. 25th and since Jan. 1, the clearances of petroleum, in gallons, from the port of New York, were as follows:—

	Week.	Year.	1909.
Refined	7,567,680	127,573,890	130,228,070
Crude	1,051,205	3,352,600	6,774,915
Naphtha	322,440	16,935,500	6,284,120
Residuum	—	1,565,000	108,070

EXPORT STATISTICS.

The total exports from the port of New York and from the United States have been:—

	Gallons.
From New York, week ended Mar. 25th	11,141,445
Total from New York, from Jan. 1st, 1910	173,551,120
Same period last year	180,413,342
Decrease	6,862,222
From United States, week ended Mar. 25th	26 967,731
Total from United States, since Jan. 1st, 1910	259,244,511
Same period last year	303,572,629
Decrease	44,328,118

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The "Review" Shipping List.

April 8, 1910.

(*The following abbreviations are used in this table:*—L. Left; P. Passed; Arr. Arrived; Sp. Spoken; Tr. Trading.)
Anglo-American Co.'s vessels marked thus (□): the Anglo-Saxon Co.'s tankers thus (*): and Messrs. Lane and Macandrew's thus (†).

Vessel.	From.	For	Latest Date and Position.
ALCHYMIST	Algiers	Selzaete	At Southampton, April 6
ALICE ET ISABELLE (Fr. bq.)	New York	Rouen	In Port, Mar. 12, laid up
AMERICAN	Antwerp	New York	P. Lizard, Mar. 29
APPALACHEE □	Belfast	Philadelphia	L. Mar. 31
APSCHERON	Batoum	Genoa	Arr. April 1
ARAL	Tuborg	Tyne	In Port, April 5
ARAS	Kustendje	Manchester & Belfast	At Manchester, April 6
ASHTABULA □	San Francisco	Itozaki	Arr. Mar. 27
ASTRAKHAN	Tyne	Philadelphia	P. Dunnet Head, Mar. 31
AUGUSTA	Brunsbuttel	Hamburg	In Port, April 5
AUREOLE	Amsterdam	Galveston	Arr. Mar. 24, & Sd. Mar. 27 P. Arthur
AZOV	Tyne	Callao	Arr. Mar. 29
BAKU STANDARD	Cardiff	Tyne	In Port, April 5
BALAKANI†	Horta (Azores)	New Orleans & Mobile	Arr. April 4
BATOUM	Tyne	Port Arthur (Texas)	P. Dover, Mar. 26
BAYONNE	New York	Genoa	L. Mar. 22
BEACON LIGHT	Batoum	Rouen	P. Sagres, April 1
BLOOMFIELD	Emden & Manchester	Galveston	At Norfolk (Va.), April 6
BORJOM	—	—	Tr. b'tw'n Black Sea & Levant
BRILLIANT	Stettin	Philadelphia	Arr. April 3
BRILLIANT (Br. bq.)	Bombay	Baltimore & Philadelphia	L. Jan. 5
BRITISH SUN	Sheerness	Tyne	Arr. Mar. 3, in Port, Mar. 29
BROADMAYNE	Tonsberg	Tyne	In Port, April 5
BUFFALO	Hamburg	New York	L. Mar. 22
BULLMOUTH*	Bombay	—	L. April 4
BULYSSES*	Freshwater	Soesoe	Arr. April 3
BURGERMEISTER PETERSEN	Oporto	Azores	L. April 2
BUYO MARU	Shimonoseki	Noumea	L. Jan. 22
CADILLAC	Bengkalis	—	At Las Palmas, April 6
CALCUTTA (B. b.) □	San Francisco	Yokohama	L. Mar. 17
CAMILLO (Late "Joyo Maru")	Port Arthur (Texas)	London	At Norfolk (Va.), April 4
CAPTAIN A. F. LUCAS	Tampa	New York	Arr. Mar. 26
CARDIUM*	New York	Bombay	Arr. April 4
CARPATHIAN†	Rotterdam	Port Arthur (Texas)	L. Mar. 27
CAUCASIAN†	Rotterdam	Kustendje	P. Lisbon, April 1
CHARLOIS	Hamburg & Tyne	New York	P. Dover, April 6
CHESAPEAKE □	Batavia	New York	At Port Natal, abt. April 1
CHESTER	Philadelphia	Antwerp	Arr. April 4, in Port, April 5
CHEYENNE	Savona	New York	P. Tarifa, Mar. 31
CITY OF EVERETT	Boston	New York	Arr. Mar. 29
CIUDAD DE REUS	Barcelona	Batoum	L. April 3
CLAM*	Hong Kong	Balekpappan	Arr. Mar. 29
CLEARFIELD	Rouen	Tyne	In Port, April 5
CONCH*	New York	India (via Port Natal)	Sd. Dakar, April 3
CONRAD MOHR	Bergen	Philadelphia	Sd. Tyne, Mar. 22
COWRIE*	Tientsin	Singapore	L. Mar. 23
CUYAHOGA □	Alexandria	Bengkalis	At Colombo, abt. Mar. 30
CYMBELINE	Campana & Sand Key	New York	Arr. Mar. 29
CZAR NICOLAI II.	Batoum	Hamburg	P. Gibraltar, April 6
DAGHESTAN	Genoa	Batoum	L. April 3
DAKOTAH □	Moji	San Francisco	L. Mar. 25
DANUBIAN†	Port Arthur (Texas)	Amsterdam	L. April 6
DELAWARE □	New York	Liverpool	In Port, April 6
DERBENT	Batoum	Manchester	Arr. April 5
DEUTSCHLAND	New York	Rotterdam	L. April 1
DIAMANT	Hamburg	New York	P. Dungeness, Mar. 25
EDWARD DAWSON	Zeebrugge	Tees	In Port, April 5
EL LOBO	San Francisco	Lobitos	Arr. Mar. 1
ELAX*	Taketoyo	Balekpappan	L. Mar. 28
ELISE MARIE	Gothenburg	Tyne	Arr. April 5
ENERGIE	Hamburg	Philadelphia	P. Lizard, Mar. 27
ERIVAN	Batoum	Dunkirk	Sd. Constant'ple, Mar. 27
EUPLECTELA*	Freshwater	Shanghai	Arr. April 4
EXCELSIOR	New York	Alexandria	Sd. Algiers, April 2
FRANCE MARIE (French bq.)	Santander	Marseilles	In Port, April 5
GEESTEMUNDE	New York	Danzig	Arr. April 3
GENESSE □	Philadelphia	Gulf Port	Arr. Mar. 29
GEORGIAN PRINCE	Vallo	Tyne	In Port, April 5
GOLDMOUTH*	Thameshaven	Tyne	Arr. April 3, in Port, April 5
GUTHEIL	Philadelphia	Nipe	P. Del. Break., Mar. 23
H. C. HENRY	Tees	Seattle	Sd. Monte Video, Mar. 13
HAINAUT (Du. sh.)	New York	Antwerp	L. Feb. 23
HARRY WADSWORTH	Hull	New Orleans	Sd. Portland, April 5
HELIOS	Hamburg	New York	In Tyne, April 5
HERMIONE	Rangoon	Gibraltar	Arr. Mar. 30/31
HESPERUS	Avonmouth	New York	L. Mar. 27
HOTHAM NEWTON	Zeebrugge	Hull	In Port, April 6, laid up
HYRCANIA	Batoum	London	Arr. Mar 23, in Port, April 6
IOANNIS COUTZIS	Cardiff	Batoum	P. Sagres, April 4
IROQUOIS □ (towing barge Navahoe)	London	New York	P. Dover, April 6
J. B. AUG. KESSLER	Novorossisk	Rotterdam	Arr. Mar. 23, in Port, April 5
JAMES BRAND	Portland	Tyne	Arr. April 1, in Port, April 5
JULES HENRI (French bq.)	Marseilles	New York	L. April 2
KURA	Philadelphia	Dublin	L. Mar. 28
LA CAMPINE	Tyne	New York	L. April 5
LA FLANDRE	Ghent	Antwerp	L. April 6
LA HESBAYE	Kustendje	Antwerp	Arr. April 4, in Port, April 5
LACKAWANNA □	Philadelphia	Manchester	Arr. April 5
LE COQ†	Bordeaux	Kustendje	P. Gibraltar, April 2
LOUTSCH	Alexandria	Batoum	P. Dardenelles, April 1
LUCERNA	Brunsbuttel	Tyne	L. April 6
LUCIGEN	Trial Trip	Tyne	In Port, April 5, laid up
LUCILINE†	Rouen	Kustendje	P. Gibraltar, April 2
LUMEN	Ibrail	La Pallice & Rouen	L. Mar. 31
LUTETIAN†	Tyne	Novorossisk	P. Ushant, April 3
LUX†	Gironde	Tyne	Arr. April 4
MANHATTAN	New York	Messina	At Malta, April 6
MANNHEIM	Stettin & Tyne	Philadelphia	P. Butt of Lewis, Mar. 28
MARGARETHA	Medi'ranean	New York	Arr. April 3
METEOR	Vladivostock	U.K. or Cont.	Cld. Perim, April 3
MEXICAN PRINCE	Cienfuegos	London	Arr. Mar. 25, in Port, April 6
MINA BREA	Caleta Buena	Callao	On W.C. South America, Mar. 31
MINHLA	Rangoon	Chittagong	L. April 5
MIRA	Calais	Blyth	In Port, April 5, laid up
MUREX*	Freshwater	Balekpappan	L. April 2
NARRAGANSETT	London	New York	Arr. April 5
NEW YORK □	Rotterdam	New York	Arr. April 3

Vessel.	From.	For.	Latest Date and Position
NIAGARA	Sabang	Rotterdam & Hamburg	Off the Wight, April 6
OBERON	San Francisco	Ancon......	Sd. P. San Luis, Mar. 18
OCEAN	Antwerp	Philadelphia	Arr. April 4
OILFIELD	Rouen	Tyne	In Port, April 5
ORIFLAMME†	Havre	Tyne	Arr. in Tyne for repairs, Mar. 2
OTTAWA □	Liverpool ..	New York ..	Arr. April 5
OURAL	Batoum ..	Antwerp	L. April 2
PATELLA*	San Francisco	Hong Kong & Saigon	L. April 4
PAUL PAIX........	Calais	Hull........	L. April 6
PAULA	Tyne	Philadelphia	P. Dunnet Head, Mar. 25
PECTAN	Port San Luis	Taltal	Sp. Mar. 7, 29 N., 117 W.
PENNOIL	Rotterdam ..	Philadelphia	P. Lizard, April 3
PETROLEA	Hull	London	L. Mar. 31
PETROLEINE	Novorossisk	Havre	Arr. April 4, in Port, April 5
PHOEBUS	New York ..	Hamburg ..	Arr. April 4, in Port, April 5
PINNA†	Ushant	London	L. April 6
POTOMAC □	New York ..	Manchester..	Arr. April 1, in Port, April 6
PROGRESSO ARGENTINA (Ar. bq.)	Port Arthur (Texas)	Buenos Ayres	Arr. Dec. 10
PROMETHEUS ..	New York ..	Rotterdam ..	L. Mar 28
PRUDENTIA	London	Tees........	Arr. April 3, in Port, April 4
PURELIGHT......	Hamburg & Tyne	Philadelphia	Arr. Mar. 30
QUEVILLY (Fr. bq.)	Rouen	Havre	Arr. Nov. 20, in Port, April 5
RENDOVA (Br. bq.)	At Sydney ..	Port Sunlight	Abt. Feb. 23
RION..............	Port Arthur (Texas)	Foynes	L. Mar. 25
ROCK LIGHT† ..	Newport N'ws	Manchester..	L. Mar. 23
ROMANY*	Singapore ..	Samboe	Arr. Mar. 22
ROTTERDAM	Amsterdam	New York ..	P. Prawle Pt., April 1
ROUMANIAN†	Newport Nws.	London	L. April 6
RUSSIAN PRINCE	Liverpool ..	Cienfuegos ..	Arr. April 4
SALAHADJI*......	Singapore ..	Penang	L. April 2
SAN ANTONIO....	London & Southampton	Puerto Mexico	Sd. Dartmouth, Mar. 29
SAN IGNACIO DE LOYOLA (Sp. bq.)	New York ..	Pasages	L. Jan. 26
SANTA MARIA....	San Francisco	P. San Luis	Arr. Feb. 26
SANTA RITA......	—	San Francisco	Arr. abt. Mar. 21
SARANAC □	Philadelphia	Port Natal ..	At St. Vincent (C V.), Mar. 23
SAXOLEINE	Novorossisk	Rouen	P. Sagres, April 3
SEMINOLE □......	San Francisco	Kuchinotzu..	Arr. April 4
SERVIAN†	Newport N'ws	Belfast & Manchester	L. April 2
SIRIUS (Ger.)	New York ..	Hamburg ..	L. Mar. 28
SNOWFLAKE	Newport	Constant'ple	P. Tarifa, April 1
SOYO MARU	Lobitos	Yokohama ..	Arr. Feb 6
SPONDILUS*	Tyne	Singapore ..	L. April 6
STANDARD	New York ..	Hamburg ..	In Port. April 5
STROMBUS*	Calcutta	Aroe Bay ..	L. April 3
SULTAN VAN LANGKAT*	Sceso2......	Samboe	Arr. Mar. 19
SUNLIGHT (Br. bq.)	Macoris	Boston	L. April 4
SURAM	Amsterdam	Blyth	Arr. April 4, in Port, April 5
SUWANEE □	New York ..	Vera Cruz ..	Sd Galveston, Mar. 28
SVIET	Marseilles ..	Novorossisk	Cld. Constant'ple, Mar. 30
TAMARAC □	Philadelphia	London	P. Del. Break., Mar. 26
TELENA*	Alexandria ..	Tyne	Arr. Mar. 17, in Port, April 5
TEREK†	Kustendje ..	London	P. Gibraltar, April 3
TIFLIS............	Batoum	Hamburg ..	P. Constant'ple, Mar. 30
TIOGA □	Kustendje ..	London	P. Sagres, April 5
TONAWANDA □ ..	Philadelphia	Barrow	Off Barrow, April 2, waiting water
TRINCULO........	San Francisco	Tocopilla ..	At Port San Luis, Mar. 18
TROCAS*	Shanghai ..	Bremerhaven & Hamburg	P. Perim, April 4
TUSCARORA......	New York ..	Bombay	Arr Mar. 15
VEDRA............	Antwerp	Batoum	P. Sagres, Mar 27
VILLE DE DIEPPE (Nor. bq.)	Philadelphia	Rouen	Arr. Sept. 7, in Port, Jan. 24, laid up
VOLUTE*	Samboe	Melbourne ..	Arr. April 2
WASHINGTON....	Baltimore ..	Port Said ..	P. Tarifa, April 2
WEEHAWKEN....	Kustendje ..	Alexandria ..	Cld Constant'ple, Mar. 31
WILLKOMMEN ..	Stettin & Tyne	Philadelphia	Arr. April 6
WINNEBAGO	New York .	Port Natal ..	P. Perim, Mar. 22

Latest Market Intelligence.

LONDON OIL MARKET.

Supplied by Messrs. Benjamin & Gee, 31, St. Mary Axe, E.C.

April 8th, 1910.

There are no alterations to report in the price of Refined Petroleum, the current prices being :—Russian, 5¾d.; Roumanian, 7d.; American, 6d.-6¼d.; Water White, 7d.-7¼d.

LUBRICATING OILS

are unchanged, current prices being :—

American pale, £6 10s. to £9 10s.
American dark cylinder, from £7 12s. 6d.
American filtered cylinder, from £10 12s. 6d.
No. 1 Russian, for Spot, £8.

TURPENTINE.

American Turpentine has been very steady, current prices being for Spot, 42s. 3d., May-June 42s., July-December 39s.

LIVERPOOL OIL MARKET.

April 7th.

Refined oils are quiet, and sellers quote 6d., for Russian, Galician or Roumanian; and 6½d. to 7d. per gallon for American.

LATEST AMERICAN PRICES.

New York, April 7th.

Refined, in cases, is steady at 10·30; Standard White, 7·90; Credit balances, 1·40.

Philadelphia, April 7th.

Standard White is now quoted at 7·90.

GERMANY.

Hamburg, April 6th.

The petroleum market is without any change. American, ·800–6·30 marks; Pennsylvanian, 6·40 marks; Galician, 6·30 marks. Russian and Roumanian not on the market.

RUSSIA.

Baku, April 4th.

The market is somewhat lower. Crude oil is quoted at 17-17½ copecs per pood spot. Kerosene, in ships, 21-21½ copecs spot; 26 copecs next navigation. Mazout 17¼ copecs.

BELGIUM.

Antwerp, April 7th.

The petroleum market is without change. Price of Standard White, spot, 20·75 francs per 100 kilos.

ROUMANIA.

April 4th.

	Francs.
Crude oil from different fields, including pipe line charges, per 100 kgs. ...	3·50–3·60
Refined oil, exclusive of taxes, ex. refinery...	8·30
Residuals in tank waggons, at refinery ...	3·50–3·60
Paraffin	110–120
Prices for Export.	
Refined oil, f.o.b., per 100 kgs.	6·00–6·50
Benzine, sp. gr. 0·710–0·715, f.o.b.	16–17
„ sp. gr. 0·715–0·720 „	14·50–15·50
„ sp. gr. 0·730–0·740 „	10–11
„ sp. gr. 0·745–0·755 „	9–10
Lubricating, horticultural	33
„ prime	36
„ extra	42
„ Royal, “ Steaua Romana ” ...	46
Imperial “ Aurora ”	46
Vacuum-Ideal “ Vega ”	52

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IMPORTS of PETROLEUM into UNITED KINGDOM

Specially prepared for this Journal by the Custom House.

FOR THE EIGHT DAYS ENDED MARCH 28TH, 1910—

Date.	Port and Importers.	Description.	No. of Gals.	Port Whence.
Mar.	London—			
21	Scott's Wharf	Lub.	3,000	New York
21	Anglo-American Oil Co.	"	6,240	"
21	Port of London Authority	"	4,600	"
21	British Monogram Oil Co.	"	15,330	"
21	Lunham and Moore	Lub. Gr.	150	"
21	Petroles de Grosnyi (Lucerna)	Benzine	693,660	Novorossisk
21	Page, Son and East	Lub.	120	Antwerp
21	T. H. Lee	Lub. Gr.	350	Hamburg
22	Fielder, Hickman and Co.	Lub.	15,640	New York
22	J. W. Starkey	"	4,550	"
22	Produce Brokers' Co.	"	6,000	"
22	Argo Steamship Co.	"	300	Bremen
23	Anglo-American Oil Co.	"	44,280	New York
23	Mordaunt Bros.	"	7,500	"
23	Mercantile Lighterage Co.	"	8,250	"
23	W. F. Watt	"	3,000	Hamburg
23	T. H. Lee	Lub Gr.	460	"
24	Mordaunt Bros.	Lamp	10,000	"
24	"	"	10,000	"
24	J. Lennard and Co. (Prudentia)	Gas	858,000	Pt. Arthur
24	Homelight Oil Co. (Hyrcania)	Lamp	1,874,270	Batoum
24	A. Brown and Co.	"	4,000	Philadel.
24	Mordaunt Bros.	Lub.	2,850	"
24	Mercantile Lighterage Co.	"	44,550	New York
24	Asiatic Pet. Co. (Goldmouth)	Benzine	2,586,790	Pulo Samboe
26	British and Foreign Wharf	Lub.	640	Antwerp
26	T. H. Lee	"	60	Hamburg
26	Mordaunt Bros	Lamp	10,000	"
26	"	Lub.	2,700	New York
26	C. Shaw, Lovell and Sons	"	1,680	Hamburg
26	Port of London Authority	"	4,660	"
	Liverpool—			
21	W. B. Dick and Co.	"	27,750	Philadel.
21	G. B. Taylor	"	14,880	"
21	Meade-King, Robinson & Co.	"	41,960	"
21	Worthington and Boler	"	7,400	"
21	Crew, Levick and Co.	"	6,530	"
21	"	M. Colza	5,180	"
21	Fellows, Morton and Clayton	Lub.	1,500	"
21	Burnaby and Chantrell	Lub. Gr.	390	"
21	J. T. Fletcher and Co.	"	60	Antwerp
22	American Line	Lub.	6,600	Philadel.
22	J. Light and Son	"	2,000	Hamburg
22	Vacuum Oil Co.	Lub. Oil and Gr.	7,400	New York
22	Stockdale and Doel	Lub.	6,840	Boston
23	G. B. Taylor	"	19,400	Hamburg
23	Huxley and Co.	"	120	"
23	Pickfords, Ltd.	Lub. Oil and Paste	500	"
23	Meade-King, Robinson & Co.	Lub.	20,800	"
23	"	"	4,000	Philadel.
23	G. B. Taylor	"	2,000	New York
23	D. Owen and Son	Lub.	2,750	New York
23	Bowring Petroleum Co.	"	3,000	Philadel.
23	Bramwell, Fern and Co.	"	5,100	"
24	Ismay, Imrie and Co.	"	1,160	New York
24	Gandy Belt Manufacg. Co.	Lub. Gr.	190	Antwerp
24	J. Light and Son	Lub.	1,000	New York
26	A. Hopps and Sons	"	16,620	Baltimore
26	"	M. Colza	5,840	"
	Barrow—			
23	Anglo-American Oil Co. (Appalachee)	Naphtha	395,520	New York
23	" "	Lamp	57,440	"
	Bristol—			
21	Pickfords, Ltd.	Lub. Oil and Gr.	200	Hamburg
22	"	Lub. Gr.	1,100	Antwerp
22	C. Hill and Sons	Lub.	13,540	New York
22	"	"	11,000	"
23	Anglo-American Oil Co. (Hesperus)	Lamp	2,258,210	"
23	J. and R. Bush	Lub.	1,960	"
23	"	Lamp	200	"
23	First Anglo-Russian Oil Co.	Lub.	2,690	"
26	"	Lub. Gr.	280	Antwerp
	Cardiff—			
21	Cardiff Colliery Supply Co.	"	180	Hamburg
26	Guthrie, Heywood and Co.	Lub.	4,950	Baltimore
	Gloucester—			
26	Bristol S. Navigation Co.	"	80	Hamburg
	Grimsby—			
21	J. Sutcliffe and Sons	"	1,240	Antwerp
	Hull—			
21	Wilsons and N.E. Co.	"	600	Hamburg
21	"	"	480	Antwerp
21	"	"	400	Dunkirk
22	T. Wilson, Sons and Co.	"	2,000	Trieste
24	Wilsons and N.E. Co.	"	320	Hamburg
24	"	"	1,190	Antwerp
	Manchester—			
21	Bramwell, Fern and Co.	"	810	Philadel.
21	Worthington and Boler	"	1,920	"
21	Meade-King, Robinson & Co.	"	9,000	"
21	R. Wells and Co.	"	800	New York
21	G. B. Taylor	"	144,880	Philadel.
21	Meade-King, Robinson & Co.	M. Colza	12,920	"
22	C. H. Morton and Son	Lub.	240	"
22	Wilson, Son and Co.	"	120	Rotterdam
22	J. T. Fletcher and Co.	"	770	Antwerp
22	"	"	240	"
23	Crew, Levick and Co.	"	7,230	Philadel.
23	"	M. Colza	3,110	"
26	J. T. Fletcher and Co.	Lub.	80	Antwerp

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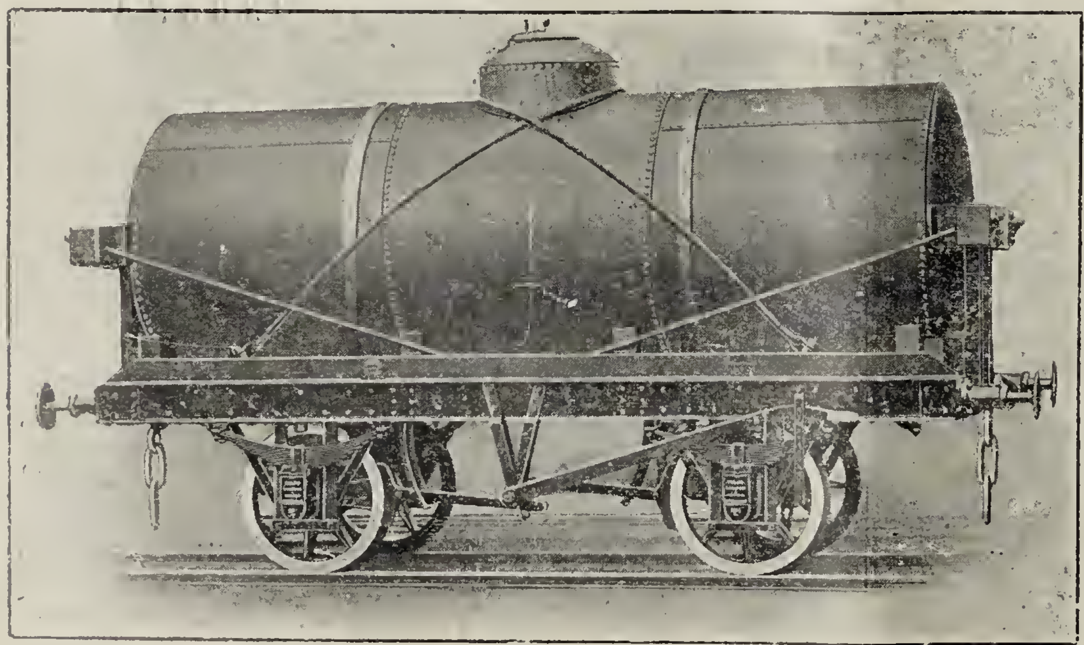

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IMPORTS.—(*Concluded*).

Date. Mar.	Port and Importers	Description.	No. of Galls.	Port Whence.
Mar.	Middlesbro'—			
21	E. Harris and Co.	Lub.	2,000	Antwerp
	Swansea—			
24	Burgess and Co.	L.Paste	760	Hamburg
	Aberdeen—			
21	W. Graham-Yooll and Co.	Lamp	2,620	,,
26	R. C. Reid and Co.	Lub. Gr.	60	,,
	Dundee—			
24	A. Gray	Lamp	390	,,
	Glasgow—			
21	Anchor Line	Lub.	35,400	New York
22	,,	M.Colza	10,040	,,
22	Clyde Shipping Co.	Lub. Gr.	120	Antwerp
22	,,	,,	120	,,
28	Anchor Line	Lub.	20,300	New York
	Grangemouth—			
21	W. Graham-Yooll and Co.	Lamp	2,000	Hamburg
21	J. Currie and Co.	Lub. Oil and Paste	630	,,
24	,,	L.Paste	40	,,
24	,,	Lub.	2,000	,,
24	W. Graham-Yooll and Co.	Lamp	2,000	,,
	Leith—			
21	W. Graham-Yooll and Co.	,,	2,180	,,
21	J. Currie and Co.	Lub.	60	,,
21	G. Gibson and Co.	,,	280	Antwerp
	Belfast—			
8	J. C. Pinkerton and Co.	Hydro-carbon	500	,,
22	Anglo-American Oil Co. (Appalachee)	Lamp	809,820	New York
24	J. C. Pinkerton and Co.	Lub.	60	Antwerp
	Total for Eight Days		10,261,680	

FOR THE WEEK ENDED 4TH APRIL, 1910—

Date.	Port and Importers.	Description.	No. of Galls.	Port Whence.
Mar.	London—			
29	Page, Son and East	Lub. Oil and Gr.	200	Antwerp
29	,,	Lub. Oil and Gr.	120	,,
29	J. Harrison	Lub.	210	,,
29	Lunham and Moore	Lub. Gr.	120	New York
29	Produce Brokers' Co.	Lub.	6,800	,,
29	Anglo-American Oil Co.	,,	4,000	,,
29	Langley, Smith and Co.	,,	8,000	,,
29	Mordaunt Bros.	,,	22,500	,,
29	E. Clark	,,	2,590	Philadel.
29	Bowring Petroleum Co.	,,	3,100	,,
29	Lubricating & Fuel Oils, Ld.	,,	10,660	,,
29	Argo Steamship Co.	,,	300	Bremen
30	Port of London Authority	,,	4,660	Hamburg
30	Snowden, Sons and Co., Ltd.	Lub.Gr.	2,600	New York
30	British Monogram Oil Co.	Lub.	740	,,
30	Union Lighterage Co.	,,	6,720	Philadel.
30	Fielder, Hickman and Co.	,,	13,920	New York
30	,,	Lub. Gr.	400	,,
30	A. H. Post and Co.	Lub.	160	,,
30	Mercantile Lighterage Co.	,,	9,750	,,
31	Page, Son and East	Lub. Oil and Gr.	320	Antwerp
31	British and Foreign Wharf	Lub.	40	,,
31	T. H. Lee	Lub. Gr.	460	Hamburg
31	E. J. Walkenshaw	Lub.	3,400	,,
31	W. F. Watt	,,	2,400	,,
31	Worthington and Boler	,,	5,000	Philadel.
31	Anglo-American Oil Co.	,,	49,400	,,
31	G. and H. Green	Lub. Gr.	4,180	New York
31	J. Spurling	,,	240	,,
31	Asiatic Petroleum Co. (Goldmouth)	Crude	2,730	Pulo Samboe (Dutch India)
April				
1	Anglo-American Oil Co. (Iroquois)	Gas	341,510	New York
1	,, ,,	Lamp	1,923,710	,,
1	W. H. J. Alexander	Lub	2,670	Philadel.
2	A. Brown and Co.	,,	3,600	,,
2	,,	Lamp	4,000	,,
2	Mercantile Lighterage Co,	Lub.	26,350	,,
2	Perkins and Homer	,,	2,400	,,
2	Produce Brokers' Co.	,,	2,400	Hamburg
4	Anglo-American Oil Co.	,,	84,000	Philadel.
4	W. H. J. Alexander	,,	3,080	New York
4	British and Foreign Wharf	,,	240	Antwerp
4	Page, Son and East	Lub. Oil and Gr.	120	,,
4	C. Shaw Lovell and Sons	Lub.	1,680	Hamburg
4	Port of London Authority	,,	4,040	,,
4	T. H. Lee	,,	190	,,
4	Port of London Authority	,,	800	,,
4	Argo Steamship Co.	,,	80	Bremen
	Liverpool—			
29	Meade-King, Robinson & Co.	Lub. Oil and Gr.	26,240	Baltimore
29	Burnaby and Chantrell	Lub. Gr.	1,570	New York
29	Colby and Co.	Lub.	1,320	,,
29	Valvoline Oil Co.	,,	16,850	,,
29	W. Gibson and Sons	Lamp	2,050	Boston
29	D. Currie and Co.	Lub. Oil and Gr.	280	Hamburg
Mar.				
29	Pickfords, Ltd.	Lub. Oil and Paste	560	,,
29	G. Smart	Lub. Gr.	2,180	,,
29	D. Currie and Co.	Lub.	240	,,
29	J. T. Fletcher and Co.	Lub. Gr.	400	Antwerp
30	Vacuum Oil Co.	Lub.	5,600	New York
30	G. B. Taylor	,,	81,200	,,
30	Ismay, Imrie and Co.	,,	1,720	,,
30	F. Cheesman and Co.	,,	1,000	,,
30	Fellowes, Morton & Clayton	,,	2,670	,,
30	W. B. Dick and Co.	,,	16,300	,,
30	,,	,,	20,980	Philadel.
30	Worthington and Boler	,,	7,400	,,
30	,,	Lub.Gr.	400	,,
April				
1	American Line	Lub	3,440	,,
1	Bramwell, Fern and Co.	,,	650	,,
1	Fellows, Morton and Clayton	,,	920	,,
1	E. Harrison and Co.	,,	12,200	,,
1	Meade-King, Robinson & Co.	,,	31,960	,,
1	Bowring Petroleum Co.	,,	6,070	,,
1	Crew, Levick and Co.	,,	12,320	,,
1	,,	M.Colza	5,140	,,
1	Meade-King, Robinson & Co.	Lub.	161,090	Batoum
1	Bramwell, Fern and Co.	,,	161,090	,,
1	,,	L.Resid.	57,600	,,
1	Meade-King, Robinson & Co.	,,	57,600	,,
1	W. Jones	Lub.	80	Antwerp
2	J. T. Fletcher and Co.	,,	290	,,
4	C. W. Field and Co.	,,	210	,,
4	Crew, Levick and Co.	,,	2,750	Philadel.
4	Bowring Petroleum Co.	,,	2,280	New York
4	Vacuum Oil Co.	,,	26,020	,,
4	A. Hopps and Sons	L.Resid.	5,430	Newp't Nws.
Mar.	Bristol—			
30	C. Hill and Sons	Lub.	1,600	New York
30	W. G. Clarke	Lub. Gr.	2,400	Antwerp
31	Pickfords, Ltd.	Lub. Oil and Gr.	850	Hamburg
31	Anglo-Bosphorus Oil Co.	Lub.	3,030	,,
31	First Anglo-Russian Oil Co.	Lub.Gr.	210	,,
April	Cardiff—			
2	Bristol Steam Nav. Co.	,,	60	Antwerp
Mar.	Goole—			
31	Goole S.S. Co.	Lub.	230	Hamburg
	Grimsby—			
29	J. Sutcliffe and Son	,,	1,280	Antwerp
29	,,	,,	240	,,
	Hull—			
29	T. M. Roberts and Co.	,,	410	,,
29	T. Wilson, Sons and Co.	,,	46,720	New York
30	Asiatic Pet. Co. (Petrolea)	Crude	59,000	Rotterdam
30	Wilsons and N.E. Co.	Lub.	80	Antwerp
31	,,	,,	4,640	,,
31	W. Gilyott and Co.	,,	103,720	New York
	Manchester—			
30	W. Hodgson and Co.	,,	480	Riga
30	Pickfords, Ltd.	,,	70	Hamburg
31	Wilson, Son and Co.	,,	120	Rotterdam
	Newcastle—			
29	Tyne Tees Steamship Co.	,,	240	Hamburg
31	,,	,,	360	,,
	Swansea—			
31	Bristol Steam Nav. Co.	,,	600	Antwerp
April	Glasgow—			
2	J. P. Hutchison	,,	200	Rouen
Mar.	Grangemouth—			
29	W. G. Yooll and Co.	Lamp	2,000	Hamburg
April				
1	,,	,,	2,000	,,
1	J. Currie and Co.	Lub.	1,000	,,
Mar.	Leith—			
29	J. Currie and Co.	Lub. Gr.	560	Bremen
29	Henderson and McIntosh	Lub.	51,300	Philadel.
29	J. Currie and Co.	,,	420	Hamburg
29	W. G. Yooll and Co.	Lamp	2,180	,,
29	G. Gibson and Co.	Lub.	230	Antwerp
31	,,	,,	3,900	,,
31	W. Graham-Yooll and Co.	Lamp	2,180	Hamburg
April				
1	,,	,,	2,180	,,
1	J. Currie and Co.	Lub.	80	,,
Mar.	Belfast—			
31	J. C. Pinkerton and Co.	Lub. Oil and Paste	370	,,
	Deduct to correct—			
	London—		3,597,630	
3/3	Anglo-American Oil Co.	Lub.	152,770	New York
3/3	Meade-King, Robinson & Co.	Gas	97,640	Pt. Arthur
	Barrow—			
22/2	Anglo-American Oil Co.	Lamp	257,000	New York
	Dublin—			
16/2	Palgrave, Murphy and Co.	Gas	191,850	Philadel.
	Add to correct—			
	London—		2,798,370	
1/3	Anglo-American Oil Co.	Naph.	344,500	
1/3	,, ,,	Benzine	645,420	
1/3	,, ,,	Deo. Naph.	1,825,640	
	Total for the Week		5,613,930	

The Petroleum Review.

By PAUL DVORKOVITZ.

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THE PETROLEUM REVIEW:

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The Editor would esteem it a favour if readers, when communicating with the various firms advertising in our pages, would mention the "Review."

Contributions upon items of interest are always welcomed from subscribers, but in each case these should be accompanied with the name and address of the sender, not necessarily for publication.

Editorial Notes.

The Baku Russian Petroleum Company, Ltd.

Those shareholders who last week listened to the masterly and businesslike speech of Mr. Herbert Allen at the meeting of the Baku Russian Petroleum Co., Ltd., must of necessity have been impressed with the prospects which are now opening out before the reconstructed company. Not only have the many troubles which surrounded the old company and marred its operations on the Baku field been overcome, but the latest information of the striking of another oil stratum upon the company's plots at Saboontchi gives greater hopes for the future success than was ever anticipated. The sound management of the concern by an influential board of directors is now having its reward, and we can only trust that the success already achieved will in an even greater degree characterise the future operations of the company, for without doubt the properties it holds are amongst the most valuable in the Baku oil field.

Dutch Investments in the Petroleum Industry.

The Dutch market in regard to petroleum investments is particularly active at the present time, and we understand that the sphere of action is continually extending. The most remarkable fact with regard to petroleum shares on the Amsterdam market is that Dutch capital is directly interested, and not only in the petroleum industry of one country, but in almost all the petroleum producing countries of the world, prominent among which are the Dutch Indies, Roumania, Russia, America, and even Germany. In taking these countries together we find that approximately forty million pounds sterling of Dutch capital has been invested in oil enterprises. Of this total, the Dutch Indies has taken thirty-six million, while between two and three million pounds sterling of Dutch capital is invested in the Russian fields. Roumania is coming rapidly into public favour in Holland, and Dutch investors are already interested to the extent of over one million pounds sterling in that progressive oil country. There is no doubt that the continually increasing interest shewn throughout Holland in the petroleum industry is largely due to the fact that so many of the companies that have received Dutch support have been so eminently successful.

The Progress of the Steaua Romana.

In view of the announcement which we make elsewhere in this issue of the projected increase in the capital of the Steaua Romana, it will be of interest to our readers to briefly relate the history and present position of this powerful company which is practically not only the most important enterprise in the Roumanian petroleum industry, but also the most important commercial enterprise of the country. Founded on a solid financial basis, and in possession of petroliferous concessions covering an area of 33,000 hectares, the Steaua Romana to-day forms the centre of gravitation of the whole of the Roumanian petroleum industry, and gives it the leading direction. The company was founded in September, 1895, with a capital of 2,400,000 francs, and in December, 1895, this was increased to the amount of 7,000,000 francs, and later to that of 10,000,000 francs. In October, 1903, the German Bank took over the control of the company, increasing its capital to 17,000,000 francs, of which 7,000,000 francs was in payment to the former owner of the company (the Hungarian Bank). At present the capital of the company is 30,000,000 francs. Since 1903-4 the company has paid the following dividends:—In 1903-4, 8 per cent.; 1904-5, 8 per cent.; 1905-6, 6 per cent.; 1906-7, 8 per cent.; 1907-8, 9 per cent.; and in 1908-9, 8 per cent. The production of the crude oil on its properties since the foundation of the company has been as under (in tons):—

1896-7	23,470	1903-4	184,608
1897-8	53,330	1904-5	209,797
1898-9	109,530	1905-6	218,473
1899-1900	113,460	1906-7	328,340
1900-1	102,290	1907-8	335,954
1901-2	142,320	1908-9	341,989
1902-3	132,400	10 months 1909-10	382,946

A Mammoth Proposition.

Writing from California our correspondent sends some newsy details regarding a mammoth proposition which is creating considerable interest throughout the American oil fields. It is the intention of several capitalists to form a company with a capital of five million pounds sterling, with a view to constructing a monster oil pipe line from California to Mexico of a total length of nearly 1,000 miles, the idea being to supply the mines and smelters in Arizona and Mexico, as well as the railways in those parts of America with liquid fuel. At present, although transportation facilities are somewhat limited, the smelters of Arizona consume over 300,000 barrels of oil per month, and it is estimated that when the pipe line is laid and in full working order this great consumption will be almost doubled. Up to the present the supply has scarcely reached the demand, which latter has been considerably restricted, owing to the enormous freight rates which the oil has to stand before it reaches the centres of consumption.

DR. PAUL DVORKOVITZ ACQUIRES NEW CITY OFFICES.

Owing to increasing professional activity, Dr. Paul Dvorkovitz has this week moved into offices at No. 1, Broad Street Place, Finsbury Circus, E.C., to which address all clients will greatly oblige by addressing communications. He will, however, conduct his laboratory from 45, St. Mary Axe, at which address, as in the past, the editorial and publishing offices of the Review will be located.

TO EXPLOIT THE ALBERTA OIL FIELD.

The United States consul at Winnipeg reports the formation there of a £1,000,000 American-Canadian company to exploit the oil field of Alberta. The field is about 400 miles north-east of Edmonton, and is reported rich in oil. The Dominion Government has spent £6,000 in investigating, and prospectors have been working some time. The new company is to take over the development work of a prospector who has already sunk 14 wells. Oil has been found at a depth of about 2,500 feet, and of the 14 wells a Government expert reports eight as producing oil in commercial quantities.

The field is inaccessible, there being no railroad facilities nearer than Edmonton, but the Waterways and Athabasco railway is building into the Company's property, and it is expected that this road will be completed in about three years. In the meantime the company contemplates the erection of refineries and other necessary buildings, and expects to be ready to market its products as soon as the railway is completed. If the field proves as rich as is expected Western Canada may be supplied with petroleum at lower prices. It is expected that naphtha and lubricating oils will be procured and shipped east, and the company hopes to sell a pavement material to compete with that imported from Trinidad and Mexico.

GROSNY PETROLEUM PRODUCTION DURING JANUARY.

The total production of crude oil in the Grosny oil fields during January amounted to 4,551,935 poods, which figure included 43,400 poods yielded by spouters.

The production of the various firms during the month was as under:—

	Poods.
Akhverdoff Co.	1,682,700
Anglo-Russian Maximoff Co.	206,000
Moscow Petroleum Co.	11,240
Maximoff's Trustees	307,500
Spies Co.	1,407,165
North Caucasian Petroleum Co.	77,500
Kasbeck Syndicate	469 680
Russian Standard	198,060
Tcheleken-Daghestan Co.	112,830
St. Petersburg Society	18,600
Caspian Black Sea Co.	26,030
McGarvey	33,670
Kasmin and Berman	960

The total number of wells in exploitation was 185, the number of wells in boring 58, and in these latter 8,064 feet were bored during the month.

PRODUCTION OF ENGLISH COMPANIES IN RUSSIA.

Baku Russian Petroleum Co., Ltd.—The production for the week ended March 26th was 149,000 poods; and for the week ended April 2nd was 146,690 poods. These figures are exclusive of oil produced from plots leased off.

Russian Petroleum and Liquid Fuel Co., Ltd.—The production for the week ended April 9th was 136,000 poods, or 2,193 tons; and for the week ended April 16th was 134,000 poods, or 2,160 tons.

Spies Petroleum Co., Ltd.—The production for the week ended April 10th was 321,315 poods, or about 5,182 tons. The total production for the year to April 10th was 3.968,185 poods, or about 64,003 tons. The total production for the corresponding period last year was 3,134,445 poods, or about 50,555 tons. The production for the week ended April 17th was 327,330 poods, or about 5,280 tons. The total production for the year to April 17th was 4,295,515 poods, or about 69,282 tons. The total production for the corresponding period last year was 3,372,565 poods, or about 54,396 tons.

The European Petroleum Co., Ltd.—The production for the week ended April 10th was 119,704 poods, or 1,930 tons.

GERMAN PETROLEUM IMPORTS DURING DECEMBER.

The imports of petroleum products during December, into Germany were as under (in tons):—

From	Illuminating. Oil.	Lubricating Oil.	Benzine.	Residuals, Solar, etc.
Russia ..	5,321	8,907	1,191	—
United States	101,694	13,107	4,784	1,685
Austria ..	14,659	3,327	1,882	4,940
Roumania ..	2,765	—	2,991	—
Dutch Indies	—	—	4,074	1,088
Other Countries	23	279	248	90
Total ..	124,462	25,620	14,370	7,803

The complete imports for the year were as under (in tons):—

From	Illuminating Oil.	Lubricating Oil.	Benzine.	Residuals, Solar, etc.
Russia ..	41,395	86,410	12,110	—
United States	747,749	100,314	28,296	15,370
Austria ..	131,181	27,642	12,642	35,402
Roumania ..	31,481	—	14,429	—
Dutch Indies	—	—	73,836	10,822
Other Countries	220	2,621	1,648	1,062
Total ..	952,026	216,987	142,962	62.656
Jan. to Dec. 1908.	1,016,330	216,887	117,369	65,582

AMERICAN NOTES.

Oil at Cobalt.—It is reported that oil has recently been discovered at Cobalt, Northern Ontario, and without delay extensive operations will be started, an impetus being given to these by the Canadian Government's bounty of 1½ cents per gallon of oil produced in Canada.

Crude Oil for Fuel.—We learn from New York that many of the steamers plying between that port and Boston during the summer season are now being equipped for the burning of oil. On the Californian coast also a large number of vessels are going over from coal to oil.

The Petroleum District of Taranaki, New Zealand.

INTERESTING DETAILS.

In view of the attention which is now being aroused in the petroleum developments in New Zealand, the issue of a preliminary report by the Geological Survey of the Taranaki oil field by Dr. J. M. Bell, Director of the New Zealand Geological Survey, comes at an opportune moment. From time to time we have given details in the Review of operations which are being carried on in New Zealand for oil, and in our next issue we shall devote considerable space to Dr. Bell's preliminary report upon his recently concluded survey.

The importance of the discovery of commercial quantities of oil in New Zealand cannot be over-estimated, and now that at least one influential English company—The New Zealand Oilfields, Ltd., is preparing to operate in the territory, there is no doubt that development in the near future will be conducted more rapidly than has been the case hitherto.

Writing to the Review under date of February 9th, our special correspondent at New Plymouth states that capitalists have but little idea of the huge oil possibilities of New Zealand, otherwise there would be a rush for concessions.

A Producing Well at Taranaki.

Among the important companies operating in the Taranaki district are The Taranaki Petroleum Co., The Standard Oil Co. of New Zealand, and the Bonithon Co. The first of these companies is operating in the district of Motura, three wells having been sunk. The photograph which appears on this page is of the company's No. 2 well, which is down to 2,610 feet. Further drilling has been temporarily suspended as the oil is being forced up to the surface with enormous pressure. In fact, in three days over a hundred barrels of oil flowed from the well. The company's No. 3 well which is down to a depth of 2,660 feet is also producing, while at their No. 1 well, though this was once producing, a water trouble was met with and the hole brought to an unsatisfactory condition.

The Standard Oil Co. of New Zealand is operating close to Mount Egmont, and is down in its borehole to a depth of over 3,000 feet. Though drilling is still progressing on this well, several very promising indications of oil and gas have been met with. The Bonithon and Inglewood Companies are also now actively engaged in drilling, but so far no great success has been achieved. It may here be mentioned that all the wells so far sunk have started with ten inch casing which has been continued to about 800 feet, while finally wells have been finished with six-inch.

With reference to boring rights and conditions, Messrs. Watkins and Fox, of New Plymouth, inform us that options can be secured for a period of 21 years with the right of renewal for a further similar period, the terms of the last period being subject to an arbitration clause of royalty. The royalty is ten per cent., and boring must commence within three years of the options being taken up, but holders have the right of an extension for a further period of two years at a yearly rental of one shilling per acre.

When boring commences upon any particular option all payments cease, and the land is then secured for twenty-one years. Prof. T. H. Easterfield has recently made an analysis of Taranaki crude oil, which by distillation shewed benzine distilling between 55° and 150° C., 20 per cent.; illuminating oil distilling between 150° and 300° C., 40 per cent.; and heavy oil for lubricating purposes, 37 per cent.

Dr. Bell points out that in his opinion the chances for the oil industry in Taranaki are as good as any imperfectly tried field, and he hopes that after the observations which the geological survey is now carrying out are completed, the industry will be pushed forward as rigorously as surface indications certainly seem to warrant. Dr. Bell's full preliminary report will appear in our next issue.

RUSSIAN PRODUCTION DURING FEBRUARY.

The production of crude petroleum in the Baku fields during February amounted to 37,100,000 poods, or 4,300,000 poods more than in January. The total for the two months amounts thus to 78,500,000 poods, as against 71,800,000 poods for the corresponding period of 1909 and 76,200,000 poods in 1908.

The production at Grosny during January amounted to 4,600,000 poods, as against 4,900,000 poods produced during December, 1909, and 3,900,000 poods in January, 1909. The yield on spouted oil was even less than in December, 1909, namely, 43,000 poods (against 62,000 poods in December, 1909), while in January, 1909, the spouters yielded 387,000 poods, and in January, 1908, 460,000 poods. The activity in the refineries in January can be judged from the following figures (in poods):—

	1910.	1909.	1008.
Illuminating Oil ..	7,729,000	6,638,000	8,085,000
Lubricating Oil ..	2,132,000	1,730,000	1,254,000
Residuals	14,950,000	12,817,000	14,333,000
Benzine	147,000	80,700	36,800
Other products ..	2,423,000	2,102,300	3,099,200
Total ..	27,381,000	23,368,000	25,808,000

The quantities of refined products during the whole of the year were as follows (in poods):—

	1909.	1908.	1907.
Illuminating Oil ..	96,097,000	95,928,000	159,963,000
Lubricating Oil ..	26,492,000	17,042,000	20,644,000
Residuals	191,332,000	182,422,000	302,278,000
Benzine	1,252,000	350,000	466,000
Total ..	342,225,000	321,369,000	514,268,000

From the above figures it is to be noticed a change in the nature of the production, namely, an increased production of lubricating oil, not, however, sufficient to satisfy the rising demand on the inner and outer markets.

Boring.—The average monthly number of new borings undertaken in 1909 was 15·2 for all the areas against 19·2 in 1908. The average monthly number of new completed borings amounted to 18·7 in 1909 and to 19·0 in 1908, while the total average monthly number for all completed borings was 4,315 in 1909 and 4,730 in 1908. The total number of feet bored in 1909 amounted to 362,488 in 1909, against 398,545 in 1908, shewing a decrease of 36,057 feet. Thus a continuous decrease in the boring activity in the Baku district is an incontrovertible fact.

The export of petroleum products from Baku in January amounted to (in poods):—

	1910.	1909.	1908.
Illuminating Oil ..	2,586,000	5,194,000	6,023,000
Lubricating Oil ..	1,243,000	1,096,000	841,000
Residuals	2,301,000	1,254,000	2,600,000
Crude Oil	2,452,000	2,625,000	1,805,000
Benzine	64,000	55,000	46,000
Total ..	8,646,000	10,227,000	11,391,000

A very low figure for the export of illuminating oil is to be noticed, almost equal to half of the exports in December and November, 1909 (4,835,000 and 5,895,000 poods).

The stocks in Baku on the 1st of February have reached a very high figure, namely, that of 100,600,000 poods. Beginning from the 1st of April, 1909, the stocks, which were then 104,400,000 poods, began to decrease, reaching in October the minimum figure of 34,500,000 poods, since when they start rapidly increasing, shewing the following figures:—November, 35,600,000 poods; December, 53,000,000 poods; January, 74,300,000 poods; and finally February, 100,600,000 poods. The largest increase in store is shewn by residuals, namely, 58,000,000 poods; the stock in lubricating oils has doubled, against December, 1909 (13,300,000 poods, against 6,700,000 poods); the stock in crude oil amounted to 26,400,000 poods.

The exports from Batoum amounted to 4,156,000 poods, of which 76,000 poods went to Russia and 4,080,000 poods abroad. The exports of various products abroad amounted to (in poods):—

	January, 1910.	December, 1909.	November, 1909.
Illuminating Oil ..	3,213,000	2,378,000	1,529,000
Lubricating Oil ..	697,000	711,000	665,000
Residuals	170,000	196,000	239,000

The exports of illuminating oil to various countries were as follows (in poods):—

France	1,045,000
England	888,000
Germany	635,000
Belgium	436,000
Balkan Peninsula	337,000
Other European Countries	265,000

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THE MAIKOP PETROLEUM REGION.

Important Statement by Dr. Paul Dvorkovitz.

During the present week Dr. Paul Dvorkovitz has returned to London after having spent a month in a tour of inspection through the Maikop oil region, and we are confident that our readers will peruse with interest the statement which he makes regarding this new and very important petroliferous region. In an early issue, Dr. Dvorkovitz will deal more elaborately with the field and its possibilities, but for the present the informative statement herewith published will materially assist in enabling one to better understand the region, and to recognise its potentialities. The Doctor says:—

"The Maikop oil field in Southern Russia, in which the British investor is now taking so great an interest, will, without doubt, revolutionise the petroleum industry in Europe.

"Hitherto, as is known, the chief sources of petroleum supply for Europe have been America, the Baku district of Russia, and Roumania. The disadvantage, however, of the European sources of supply has been the great distance of the producing fields from sea-board, and this has especially been the case in regard to Russia, for the oil from Baku has had to be pumped to the export port of Batoum, a distance of nearly six hundred miles. Moreover, the supply from Baku is limited to illuminating oil, for motor spirit, which especially interests the British motor industry and also indirectly the rubber industry, has chiefly been drawn from the Far Eastern fields and America, though lately to a small extent from the Grosny oil fields.

"The Maikop fields, which I have just closely investigated on behalf of the Maikop Oil Proprietary Co., Ltd., will, as I have said, entirely revolutionise the petroleum markets and trade of Europe.

"Being only at a distance of about fifty miles from the Black Sea, Maikop not only possesses a distinct advantage compared with Baku, but what is more important, the crude oil of Maikop contains a large percentage of motor spirit, which product is playing such an important part to-day in connection with the motor and rubber industry of this country.

"The Maikop field of to-day embraces an area extending over a distance of approximately twenty-five miles from east to west, and measuring at its greatest width from north to south about twenty miles.

"As is known, the fields only came into prominence toward the end of last year, owing to the bringing in of a prolific oil fountain in a well less than three hundred feet deep, and although boring operations have been actively carried on since that time, few wells have as yet been completed.

"During my stay on the field, in order to closely analyse the crude oils in various parts of the Maikop field, I took samples of crude oil from a completed well at the furthest north-western point of the known field, and from the spouter near the south-eastern portion upon the English company's property—the Black Sea Oil Fields, Ltd.

"From careful analyses of these crude oils, I find

A View in a Corner of the Field where Hand-dug Wells Exist.

that their character is absolutely similar, and this in spite of the fact that the first sample was obtained from a boring only seventy feet deep, and the other from a spouter at a depth between two and three hundred feet. This striking similarity in the two samples conclusively proves to my mind that the source of supply in the whole district is the same.

"Although during my visit I was empowered by the Maikop Oil Proprietary Co., Ltd., to acquire fifty plots, yet I have felt that to thoroughly develop such a large area, which would be about 1,350 acres, such an enormous amount of capital would be necessitated, that I preferred to limit the number of plots for that particular company to fifteen specially selected ones, thus enabling the company to have a large amount of working capital in reserve, which could be profitably invested in general equipment, storages, pipe lines, etc., all of which are necessary factors in the proper development of oil field concessions.

"I have also applied this same principle to other English companies, and I have every reason to believe that this is the most sound way of ensuring that the British investor shall get a good return for his invested capital.

"My advice to British investors at the present stage would be to only invest capital in such Maikop concerns, where the properties acquired are spread over as wide an area as possible, for it is only in such cases that they would be able to participate in that particular speculative element which plays the most attractive part in any new petroleum enterprise.

"My own impression, based upon actual experience in the vast majority of the oil fields of the world—an impression which I have reason for believing will be amply justified in the near future—is that oil in commercial quantities will be found in practically every part of the Maikop field with but comparatively few exceptions, providing, of course, that great care is exercised in entrusting drilling operations to thoroughly competent people who have actual experience in that most important branch of the petroleum industry.

"My experience, however, leads me to the conclusion that in particular places in the Maikop field, not less prolific spouters will be encountered than those which have already made the name of Maikop famous all the world over as a remarkable oil producing region. It is to future drilling successes in Maikop that I look to add very materially to the commercial solidity of the petroleum industry as a whole, and to the enormous speculative possibilities which the Maikop oil region at present affords.

Latest Information from Maikop.

(Specially Cabled to the "Review.")

The demand for the acquisition of claims in the Maikop fields is now greater than ever before, and as a result, prices for the same have risen considerably. From 40,000 to 50,000 roubles per claim is now paid for small parcels.

—*—

On the old Shirvanski otvod, belonging to Selitrennikoff, one of the wells has recently been deepened to 33 sagenes (231 feet), and is now spouting with intervals of from five to ten minutes. The yield in oil is about 40,000 to 50,000 poods daily. One of the earthen reservoirs is filled with oil, the other of a capacity of 500,000 poods not being quite completed. On another otvod, a well which has previously not shewn any oil, is now overflowing.

—*—

The daily yield of the Baku Black Sea Company's spouter is now over 1,000 poods. The company is now proceeding with the erection of storage tanks, of which one in Apscheronski has 5,000 tons capacity. Pipe lines to Apscheronski and Khadijinski are already under construction. It is said that the Baku Black Sea Co. is the only operating foreign company, which is actually conducting its operations to-day at a profit.

—*—

The Maikop Spies Co. is very energetically carrying out development work on its recently acquired plots in the field.

—*—

The deepest well now existing at Maikop is that of Kharasanoff. It is a hand-dug well without casing, and is 106 sagenes deep.

—*—

The refinery belonging to the firm of Selitrennikoff, built on the River Pshecha, is now working; the daily output being 280 poods of illuminating oil and about 90 poods of benzine.

—*—

The bureau of the local administration is preparing six maps of the Kuban petroleum area from Blagovestchenski up to the River Beli.

—*—

Exploration is now proceeding in Blagovestchenski and Varenikoff; the administration of Kuban is requesting the Government to commence exploration work in one of the other Kuban districts.

CLASSIFIED IMPORTS INTO UNITED KINGDOM UP TO APRIL 18th, 1910.

IN GALLONS.

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Country.	Illuminating.		Lubricating.		Residuals.		Gas Oil. (Solar)		Benzine.		Fuel Oil.		Other Descriptions.		Totals.	
	Since April 4.	From Jan. 1.	Since April 4.	From Jan. 1.	Since April 4.	From Jan. 1.	Since April 4.	From Jan. 1.	Since April 4.	From Jan. 1.	Since April 4.	From Jan. 1.	Since April 4.	From Jan. 1.	Since April 4.	From Jan. 1.
Austria ...	—	—	8.000	49,900	—	—	—	—	—	—	—	—	—	—	8,000	49,900
Belgium ...	—	—	17,930	154,390	—	—	—	—	—	—	—	—	—	2,300	17,930	156,690
Canada ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dutch India.	—	—	—	—	—	—	—	—	—	6,4 0,660	—	—	—	7,730	—	6,423,390
Germany ...	60 300	331,090	64,280	388,780	—	2,000	—	—	—	—	—	4,840	—	3,200	124,580	729,910
Holland ...	80	610	160	1,520	—	—	—	—	55 000	475,150	—	—	—	113,710	55,240	590,990
Roumania ...	2,742,080	5,446,150	659,560	659,560	—	134,750	290	290	—	950,400	130	130	—	—	3,40 ,060	7,191,280
Russia ...	808,000	4,560,630	575,400	2,508,120	—	115,200	—	—	—	700,8:0	—	—	—	240	1,383,400	7,885,010
U.S.A. ...	3,380,110	24,135,720	2,152,120	12,931,210	—	49,930	1,149,920	15,809,760	2,473,610	7,999,090	1,421,860	3,159,060	14 480	141,900	10,592,100	64,226,670
Other Countries	—	480,270	290	9,250	—	—	—	—	—	194,970	—	100	—	1,600	290	686,190
	6,990,570	34,947,330	3,477,740	16,702,730	—	301,880	1,150,210	15,810,050	2,528.610	16,741,090	1,421 990	3,164,130	14,480	265,680	15,583,600	87,940,030

PETROLEUM ENTERPRISES NOW BEFORE THE PUBLIC.

SCOTTISH-MAIKOP OIL WELLS, LIMITED.

During the present week this new company with a registered share capital of £105 000, divided into 100,000 preference shares of £1 each and 100,000 ordinary shares of 1s. each, has gone to public issue with 40,000 preference shares and 12,000 ordinary shares, the abridged prospectus appearing upon another page of this issue. The board of the company is a very influential one, its members being: Sir Griffith Thomas, Mr. Ernest Hirsch, late London Manager of the Spies Company; Hugh Law, M.P., Director of the Burmah Native Oil Wells Syndicate, Ltd.; Mr. Edward Stanley Omerod and Sir Edward Durand, Bart. The registered offices are situated at 6, Broad Street Place, E.C. The company is formed to acquire five plots in the Maikop oil field, and to develop the same.

MAIKOP RUSSIAN OIL COMPANY, LIMITED.

This company, which has a nominal capital of £150,000, divided into 150,000 shares of £1, has this week issued 75,000 shares at par. The company has been formed to acquire and develop six claims in the Maikop oil field in Southern Russia, the purchase consideration for the six plots being £21,000 in cash and 10,000 in fully-paid shares. The South Russian Syndicate, Ltd, are the vendors to and the promoters of the company, which has its registered offices at 522, Salisbury House, E.C., the secretary being Mr. Thomas Mullett.

BRITISH AND FOREIGN OIL AND RUBBER TRUST, LIMITED.

Registered with a share capital of 1,000,000, this company closes its public lists to-day, having offered 400,000 ordinary shares. Its directorate includes Mr. T. B. Bowring, Mr. Alexander Balfour Williamson (chairman of the Pacific Oilfields, Ltd.), Mr. William Wellington Bailey, Mr. Charles Greenway (managing director of the Anglo-Persian Oil Co, Ltd), Mr. L. R. W. Forrest, and Mr. H. W. Sillem (director of the Lobitos Oilfields, Ltd). The title of the company explains its objects.

THE ANGLO-ROUMANIAN PETROLEUM COMPANY, LIMITED.

This company, of which Dr. Dvorkovitz is the technical adviser, this week issued 42,000 shares out of its capital of 150,000, of which 100,000 has previously been issued. As is known, the company was formed to acquire oil bearing lands in the Roumanian oil fields and has been operating these for some considerable time, and now that the directors are satisfied of the existence of oil in large quantities upon the company's properties, the present issue of 42,000 shares has been made for the purpose of paying the cash portion of the purchase price, and for providing sufficient working capital to enable the company to actively proceed with the development of its business.

THE URAL CASPIAN OIL CORPORATION, LIMITED.

This company, which has a nominal capital of £600,000 in ordinary shares, went to public issue this week with £490,000. The company has been formed to acquire a concession granted by the Russian Government in respect of a large tract of territory of over one thousand square miles, situated on the North Eastern seaboard of the Caspian Sea. The property comprises eight districts, six of which have already been declared by the Russian Government to be oil bearing, and upon which it has been demonstrated that oil in paying quantities can be obtained at shallow depths. Sir Boverton Redwood has furnished a favourable report upon the properties, and it is the intention of the company to commence operations forthwith. The directors of the new concern are:—The Hon. Stuart Pleydell-Bouverie, Edmund Batten Forbes, M.Inst.C.E., The Hon. Michael Hugh Hicks-Beach, M.P., Nicolai Nicolaivitch Lehmann, Hon. Reginald Parker and Edward Hume-Schweder, while the registered offices are at Founders Court, Lothbury, E.C.

THE KERN RIVER OILFIELDS OF CALIFORNIA, LIMITED.

This recently registered company went to public issue this week with 1,050,000 shares of £1 each, out of a registered capital of £1,350,000. The issue was highly successful. The company's directors are Messrs. R. C. Baker, G. W. Hoghton (director of the Nigeria Bitumen Corporation, Ltd.), W. Parish Robertson, and L. Sutro, while the advisory committee in California consists of Messrs. L. Guggenhime (president of the Thirty-three Oil Co), A. Mack and J. J. Mack. This company has been formed for the purpose of acquiring as a going concern the property and assets of the Imperial Oil Co. and the Thirty-three Oil Co., both oil producing companies in the Californian fields, and also the oil lands belonging to the Mack Oil Co. The property acquired consists of a little over 2,000 acres of freehold land situate in the Kern River field, nearly 700 acres of which is the property which has been operated by the above-mentioned Californian companies for the past ten years, the total production from the property last year being close upon 2,000,000 barrels of crude oil. The whole of the crude oil production is taken under contract with the Associated Oil Co. at 40 cents per barrel, but it is anticipated that as soon as the present contract, which was altogether for 6,000,000 barrels, has been concluded—that is, about sixteen months from the present time—the crude oil price will be materially advanced. The oil in the Kern River field, as our readers are aware, is struck at an average depth of about 1,000 feet, and thus compared with other parts of California, the cost of sinking wells is not great. The company's offices are at 9, New Broad Street, E.C., the secretary being Mr. R. H. Young.

THE GENERAL OIL AND FINANCE CORPORATION, LIMITED.

This corporation publicly issued 250,000 ordinary shares, which is one-half of its share capital during the present week. Its object, as suggested by the title, is to conduct the business of an investment and trust company, more particularly in relation to oil-bearing properties. Although the company does not propose to confine its attention to any locality in particular, attention is to be primarily devoted to the Maikop region. Its directors are:—Mr. J. S. Smith-Winby, director of the Red Sea Oilfields, Limited; Mr. Allen Paull, chairman Egyptian Oil Trust, Limited; Mr. J. R. Richmond; and Mr. L. A. Scott Elliot (late of Batoum), director of the Maikop Midland Oilfields, Limited. The secretary to the company is Mr. Edgar Fairweather, and the registered offices are situate at 15, Moorgate Street, London, E.C.

THE MAIKOP & EASTERN OIL COMPANY, LIMITED.

This company issued 350,000 of its 500,000 2s. shares this week. The directors are: Mr. Frederic Grubb, Mr. Chas F. Palmer and Mr. Percy Samuelson. The registered offices are at 68-74, Palmerston House, Old Broad Street, E.C. This company has for its objects the carrying on of investment, trust and finance business, more particularly for purchasing and underwriting shares in petroleum companies, and in generally taking an interest in oil fields, especially those under British control and in Russia. With the exception of the preliminary expenses the whole of this week's public issue is to be devoted to working capital.

THE OIL DEVELOPMENT TRUST, LIMITED.

This company, which is formed for the purpose of selecting various oil properties, with a view of developing the same, and then introducing them to the public, issued 500,000 two-shilling shares this week; its normal capital being £100,000. The directors of the trust are:—Mr. T. H. S. Biddulph, C.I.E, Sir William B. Hudson, K.C.I.E., and Major Victor Paget. Its registered offices are at 54, New Broad Street, E.C.

RUBBER, OIL & GENERAL PROMOTIONS, LIMITED.

This company with a capital of £75,000 has also been before the public this week, its objects being stated in its title. So far, the company has no binding commitments, but the directors have received definite proposals for business which they believe will result in substantial profits in their first year of existence.

THE TAKINTA OIL COMPANY, LIMITED.

The Takinta Oil Co., Ltd., which has a nominal capital of £90,000, divided into 450,000 shares of 4s. each, went to public issue during the present week with 225,000 of its shares. Its directors are Lieut.-General Sir Bevan Edwards, K.C.M.G., the Hon. Harold P. Mostyn, Frederick R. Knollys, and Joseph Proctor (director of the Axim Petroleum Trust, Ltd.). The objects of the company are to acquire and exploit a concession known as the Takinta oil concession situate near the village Takinta, in the district of Appolonia in Gold Coast Colony, British West Africa. The concessions consist of 4,966 acres, and is about four miles from the sea shore on the south. It has been most favourably reported upon by Mr. John Parkinson and Mr. John Fitz Townsend, the former gentleman having been entrusted for the Colonial Office with the organisation of the mineral survey of Southern Nigeria. The secretaries of the company are Messrs. Gibson, Jarvie and Co., Ltd., 27, Bush Lane, E.C., which address is the company's registered offices.

THE PACIFIC OILFIELDS, LIMITED.

. . DETAILS OF THE YEAR'S DEVELOPMENTS . .

The third ordinary annual general meeting of the Pacific Oilfields, Ltd., was held on the 15th inst., at Winchester House, Old Broad Street, E.C.—Mr. Alexander Balfour Williamson (chairman of the company) presiding.

The Secretary (Mr. F. W. Bishop, F.C.I.S.) having read the notice convening the meeting and the auditors' report,

The Chairman, in the the course of his speech, said that during the year the shareholders were offered 50,000 shares at £1 each, which were all taken up, so that the total issue is now 250,000 shares of £1 each, fully paid. The gross expenditure under the head of equipment and development account was reduced by £9,535 7s. 8d. in the shape of sundry receipts for farming rents, interests and oil delivered to buyers. On the Dorn property at the beginning of 1909 we had two wells completed, but in view of the difficulty of marketing the oil produced, no further drilling operations were initiated until the autumn, when contract arrangements were concluded, under which the prospect of a suitable outlet for this product was opened up. A third well was promptly commenced, and finished towards the end of November. This well, like the first two, afforded evidence of good productive capacity when first tested. Well No. 4 was then started, and by latest advices from California work has progressed so satisfactorily that it should be completed in a few weeks. The Asphalt Refining Co., with which arrangements were made for the disposal of Dorn oil, completed its plant about the end of the year, and we are advised that the four-inch pipe line we have laid to connect with it is just finished and the first small run of oil has been made through it, though it has not yet been thoroughly tested. With a view to economy in the consumption of fuel by a better disposition of boilers and pipes, two 70-h.p. boilers are being seated on the hill close to the large tank. This is a very central position, and by the adoption of the most up-to-date plans for conserving heat it is expected that an important saving will be effected. Information supplied at our previous meetings and in our report has acquainted the shareholders with the difficulties encountered in producing and marketing the Dorn oil. It has never been practicable hitherto to pump the wells on this property except in an intermittent manner, owing to the absence of a ready market. This has resulted in recurrent sanding up in these wells, experience shewing that if not operated continuously their productive capacity is impaired; but whether or not it will prove possible to get a steady and satisfactory production from them at their present depth the field manager has not yet been able to determine. In their present condition production is disappointing.

The initial showing made by these wells warranted their completion at a comparatively moderate depth, but experience shews that the sands from which they are producing are so loose in formation that the pumps and the bottom of the wells get clogged up, and constant cleaning out and repairing is required, resulting in impairment to their efficiency as income producers. The management have decided, therefore, to deepen well No. 3, in order to prove the formation at greater depth, and a cable received to-day advises satisfactory progress. If productive sands are developed, which can be more economically developed than the upper strata, steps can readily be taken to deepen the other wells. On the McCabe property at the beginning of 1909 we had one complete well. The second oil well was begun in February and finished in July. This well has given considerable trouble, and the field manager has never been satisfied with its condition. Careful attention has been given to it, however, and when the cement which has been put into it recently has hardened, it will again be carried down into the oil sand and put to pumping. A third oil well was completed about the same time, and this one, like No. 1, has been producing regularly. A fourth well was commenced in July and finished on 5th December. This well also promises to be a good producer. Rigging up the derrick for a fifth well was commenced about the end of the year, and we are advised that it is down 2,625 feet, and is in the oil strata, and if all goes well it should be completed in a few weeks. All material is on the ground for the sixth well. Under a contract entered into in the early part of the year we were delivering the oil from this property to buyers who had laid their pipe line to our tanks in order to get it. They expressed themselves as entirely satisfied in regard to its quality and freedom from impurities, and until quite late in the year regular deliveries were made to them. Then, however, objection began to be taken on the score of excessive percentage of water in the oil, and finally they intimated that they could not accept further deliveries in that condition. The presence of water in microscopic globules was suddenly discovered in the oil and in other wells in the neighbourhood, a few months ago, and it is possible it may as suddenly disappear. Local experts apparently believe that it has been forced into the oil by gas and other pressure, and that it is not the result of ineffective shutting off of water in the wells. Our buyers, however, have signified their willingness to accept it again if we can reduce the water to a moderate percentage. Unable to do anything in this regard at short notice, and our tanks soon being filled with oil which we could not deliver, the management had to shut down our wells just about the time our fourth well was completed, so it has never been pumped at all yet.

Under these circumstances, it was decided to instal an electrical cleaning plant. Our agents and field manager have made careful investigation, and have witnessed the proposed plant in satisfactory operation in other fields, where it has met with entire success in clearing the oil of this form of water. The water is found in such microscopic globules that it will not collect and free itself by the usual gravitation process. The electrical plant is now being constructed, and it is expected to be completed this month. It will serve other useful purposes, such as lighting the camp, supplying power for drilling the wells, and operating a lathe and pipe threader, which will always be an economy of time and money. Our field manager, in a recent report advises that, with the exception of this difficulty, the property is proving all that was expected of it. He further advises that a well is being drilled by our neighbours on the western boundary, which is of great importance, as it will test the west side of the McCabe property without expense to us. He expects they will get a good well. On the Underhill and Jones properties we have not attempted any development as yet. The board have considered it advisable to maintain for the time being the policy of concentrating their attention on the development of the Dorn and McCabe properties. As to the future, only the drill can tell us what we have in store. Wells of almost unprecedented yield have recently been developed in California, and that experience may happen to us, but we must wait and see. The Chairman concluded by moving the adoption of the report and accounts.

Mr. William Mackenzie seconded the motion.

The Chairman, in reply to questions, said it was quite impossible for him to say when the company would be in a position to pay a dividend. The oil on the Dorn property was of a viscous nature, which caused it to run very slowly in the pipes. Consequently, the railroad company (which was the best market for their oil, as the line crossed their property) found it difficult to use the oil in their engines. Therefore, they had to develop other means of using the oil, and an outlet was afforded by the recently erected asphalt refinery, to which they had built a pipe line. If that refinery succeeded, others might be established.

The motion was carried unanimously.

The retiring director, Mr. R. B. Forman, and the auditors, Messrs. Harmood Banner and Son, were reappointed, and the proceedings terminated.

◆

Spouter at Surakhany.—On the 21st of March a spouter broke out in the well No. 26 of the Baku Petroleum Co., at Surakhany, yielding in about two hours 30,000 poods of oil.

Tcheleken.—A new petroleum company is being formed under the name of Tcharken for the exploitation of 22 plots of petroliferous land in Tcheleken. The prices for land are rising enormously: as much as 40,000 roubles is being now paid for a dessatine of land.

OIL PROPERTY MANAGER.

WANTED.—A thoroughly qualified Engineer, with knowledge of oil field work for a Petroleum property in the tropics. Applicants must be energetic, have had thorough engineering training, and must be accustomed to organising and running a large concern. Exceptional references required. Apply by letter in first instance to "Oil," c/o W. T. Hedges, Ltd., 1, Arundel Street, Strand, London, W.C.

Notice is hereby given that this Company has issued a Prospectus, which states among other things that the full Prospectus has been filed with the Registrar of Joint Stock Companies.

An Allotment will be made to every applicant *pro rata*, or as near thereto as possible.

The Subscription List will open on Thursday, the 21st day of April, 1910, and will close on or before Saturday, the 23rd day of April, 1910, at 1 p.m.

THE SCOTTISH-MAIKOP OIL WELLS, LIMITED.

(Incorporated under the Companies (Consolidation) Act, 1908).

REGISTERED SHARE CAPITAL	....	**£105,000**
Divided into 100,000 Preference Shares of £1 each	..	£100,000
And 100,000 Ordinary Shares of 1s. each	...	5,000
		£105,000

The Preference Shares are entitled to a Non-Cumulative Dividend of 10 per cent., and subject thereto the surplus profits available for dividends are divisible as to 30 per cent. amongst the Preference Shareholders, and as to 70 per cent. amongst the Ordinary Shareholders.

THERE ARE NOW OFFERED FOR SUBSCRIPTION :—

40,000 PREFERENCE SHARES OF £1 EACH,

Payable—On Application, 2s. 6d. per Share; on Allotment, 7s. 6d. per Share; One Month after Allotment, 5s. per Share; Two Months after Allotment, 5s. per Share = £1.

Also 12,000 ORDINARY SHARES OF 1s. EACH, Payable on Application.

Subscribers of 100 Preference Shares (or multiples thereof) will be entitled to apply for and have allotted to them 30 Ordinary Shares in respect of each 100 Preference Shares allotted to them out of the present issue.

The Vendors will receive 10,000 Preference Shares and 88,000 Ordinary Shares, both fully paid up, in part payment of the Purchase consideration, and 50,000 Preference Shares will be reserved for future issue, subject to the Vendors' option to take 21,200 of such Shares within six months at £2 per Share, and a further 13,600 of such Shares within twelve months at £3 per Share, and a further 15,200 of such Shares within eighteen months at £4 per Share.

Directors.—Sir Griffith Thomas, Court Herbert, Neath (*Chairman Swansea Harbour Trustees*); Ernest Hirsch, 133-136, High Holborn, W.C. (*Managing Director, The Kleine Patent Fire Resisting Flooring Syndicate Limited, late London Manager Spies Petroleum Company, Limited*); Hugh Law, M.P., 32, Kensington Square, London, W. (*Director Burmah Native Oil Wells, Syndicate Limited*); Edward Stanley Ormerod, Waterdell House, Croxley Green, Hertfordshire (*Director East India Distilleries and Sugar Factories, Limited*); Sir Edward Durand, Bart., 35, Ennismore Gardens, London, S.W.

Bankers.—Capital and Counties Bank, Limited, 3, Broad Street Place, London, E.C., Head Office and Branches; Manchester and Liverpool District Banking Company, Limited, Head Office Manchester and Branches; Chaplin, Milne, Grenfell and Company, Limited, 6, Princes Street, London, E.C.

Solicitors.—Shield and Mackerness, 7, Union Court, Old Broad Street, London, E.C.

Brokers.—W. A. Kolckmann and Co., 7, Austin Friars, London, E.C., and the Stock Exchange; Abraham Johnson and Son, 6, Castle Place, Belfast, and Stock Exchange.

Auditors.—Bourner, Bullock, Andrew and Company, Chartered Accountants, Bush Lane House, Cannon Street, London, E.C.

Technical Advisors.—Thompson and Hunter, 3 Lombard Street, London, E.C

Secretary and Registered Offices.—Alexander Goodlet, 6, Broad Street Place, London, E C.

ABRIDGED PROSPECTUS.

This Company has been formed for the purposes set out in the Memorandum of Association, and particularly to acquire zyavkas (or licenses to prospect for petroleum) over five plots of Oil-bearing land, situated near the centre of the Maikop Oil Field in the Maikop District of Southern Russia, and numbered 154, 173, 200, 201 and 207. Each of the five plots covers an area of 37½ desiatines (or 101¼ acres), and the Company will have the right to select an allotment of 10 desiatines (or 27 acres) in extent for mining purposes on each of the five plots, making 135 acres in all.

Situation.—All the five plots are adjacent to each other, and are situated between the villages of Hadijensky and Nephtianaya. The former village is on the high road which leads to the port of Tuapse, the distance being only about 50 miles.

Communications.—The road referred to passes close to these claims and will materially assist their development. The construction of a railway, known as the Armavir-Tuapse Railway, has already commenced, and, as projected, its course passes these plots, and concessions have been already granted for pipe lines to be laid from this important oil field to the port of Tuapse and also to a point on the existing railway.

Reports.—Messrs. Thompson & Hunter have reported on the five claims it is proposed to acquire, and a copy of their Report accompanies the full Prospectus.

The following extract is taken from the Report :—

"In forming our opinion upon the merits of the five plots which are the subject of this Report, we have derived much valuable information from reports made by Mr. Anton Raky on the Maikop Oil Fields. Our own examinations of the district, though not actually directed to the above plots, enable us to state that while the South-Eastern portion of the Oil belt has hitherto attracted most attention, there are sufficient surface indications of petroliferous strata extending along the belt to make it **certain that the ground covered by these plots will be found petroliferous.** Further, the close proximity of the Ozokerite outcrops to the plots leads us to anticipate that **the quality of the Oil will be better than that found in the more proven South Eastern portion of the field**; also the dip of the underlying strata is such as to make it **certain that no great depths will have to be perforated in order to obtain results.** The present absence of test wells in this locality makes it, of course, impossible for anyone to estimate the quantity of Oil that may be looked for. At the same time the experience gained up to the present in the district makes us **confident that the working costs will be low and profits should be correspondingly high."**

Investigation and exploitation work has been carried out and Oil found at various points over the Maikop Oil Field. An important factor is that the Oil strata lie at comparatively shallow depths, and **so recently as September last a well only 217 feet in depth is stated by the "Mining Journal" of 26th February to have thrown 30,000 tons of Oil in six days.**

Cost of Production.—The cost of production should be much less than the cost at Baku. The great advantage Maikop has over Baku is to be found in its geographical position. The Company's Property lies, as has been stated, about 50 miles from Tuapse, on the Black Sea, and some 60 miles from Ekaterinodar, the railway centre for the district, whilst Baku is on the Caspian Sea. The cost of conveying the oil to Tuapse, after the above-mentioned pipe line has been laid, should therefore be much below the cost of the carriage from Baku to Batoum. This fact constitutes a great advantage in favour of the Maikop Field. Each plot is subject to the conditions of the Russian Oil Mining Laws, and the usual royalty payable to the Government in respect of each plot is one kopeck per pood on the first 2,000,000 poods, and half kopeck per pood on any excess quantity, and each plot is also subject under Contract (*c*) to a further royalty of two kopecks per pood on all raw Oil recovered.

Labour.—The claims as stated lie between the important villages of Hadijensky and Nephtianaya, and the peasants are an industrious people who will welcome the opening up of a new industry.

Development.—The Directors intend to instruct the Russische Bohrgesellschaft to proceed with boring operations as soon as the purchase has been completed. This Company has a large quantity of boring appliances available, and by this means rapid development should be made.

Working Capital.—The Working Capital provided by this issue is estimated to be sufficient for the purpose of properly developing the plots, and when Oil has been struck the unissued Capital is estimated to be sufficient to properly carry on the Company's operations.

Purchase Consideration.—The Company acquires the property from the Maikop Development Syndicate, Limited, of 6, Broad Street Place, London, E.C., under Contract (*c*) for the sum of £21,400 and the payment of a royalty of 2 kopecks per pood of raw oil recovered. The sum of £21,400 is to be paid and satisfied as to £7,000 in cash, as to £10,000 by the allotment of 10,000 fully paid Preference Shares in the capital of this Company, and as to the balance of £4,400 by the allotment of 88,000 fully paid Ordinary Shares in the Capital of this Company. As further consideration the Vendors have the option for six months from the date of the first general allotment to subscribe for 21,200 Preference Shares at £2 per Share, an option for twelve months to subscribe for 13,600 Preference Shares at £3 per Share, and an option for eighteen months to subscribe for 15,200 Preference Shares at £4 per Share. The Vendors have also the right to nominate two Directors after allotment. Out of the said purchase price the Maikop Development Syndicate, Limited, have to pay and satisfy the consideration payable to the K. B. Syndicate, Limited.

The minimum subscription upon which the Directors may proceed to allotment is fixed by the Articles of Association at 10,000 Preference Shares offered for subscription, but as 40,000 Preference Shares have been underwritten, the Company will go to allotment immediately the Subscription List is closed.

The Company will pay a brokerage of 3d. per share on all Preference Shares allotted to the public on application forms bearing the distinguishing marks of Brokers or other approved agents.

Applications for Shares will be received only on the terms of the full Prospectus which, with Forms of Application, can be obtained from the Bankers and Brokers, and also at the Offices of the Company.

RUSSIAN NOTES.

Baku-Batoum Deliveries.—The transport of kerosene from Baku to Batoum in February amounted to 14,000 tons.

A Spouter in Grosny.—A powerful spouter has broken out on plot No. 40 of the Kasbeck Syndicate.

A Spouter in Baku.—On the fields of the Baku Petroleum Co. at Balakhany a spouter is ejecting over 150,000 poods a day.

Derrick Fire.—The derrick of the well No. 3 on the Baskakov plot of the Spies Co., which is now spouting 10,000 poods a day, has been burned down.

The Terski Petroleum Producers.—The Minister of Trade has given permission to the Terski petroleum producers to meet at Grosny during April.

Export of Illuminating Oil to Germany.—The export of Russian illuminating oil to Germany during January amounted to 5,471 tons, as against 4,665 tons in January, 1909.

Americans in Maikop.—A Kuban daily paper states that one of the American oil kings is now in Ekaterinodar, where he intends organising a number of petroleum enterprises.

A Spouter in Kuban.—On the 18th (o.s.) of last month well No. 1 on the plot Szetenki, of the Ekaterinodar Petroleum Society, commenced to spout, and still continues to throw up large quantities of oil.

Transport of Benzine.—In view of the great demand for the transport of benzine and other light products, a demand has been addressed to the Ministry for the increase of the existing means of transport of such products.

Geological Investigation.—The Geological Committee has assigned 67,550 roubles for investigating petroliferous districts, out of which 16,900 roubles are to be used for investigations to be carried on in the Kuban district.

First Derricks at Sakhalin.—On the plots of Engineer Khreie and Zotoff's Trustees the first derricks for oil borings in Sakhalin have now been erected. The wells have been pushed to a depth of 210 feet, where sand with an abundance of oil has been met with.

Loss by Leakage, etc.—The total losses through leakage and other causes of petroleum and products exported from Baku by rail in 1909 amounted to 117,320 poods of petroleum, 92,500 poods of illuminating oil, 4,500 poods of benzine, and 168,200 poods of various lubricating oils.

Distribution of Tank Waggons.—The Distribution Committee had for its disposal during March 11,935 tank waggons, of which 300 were for carrying fuel for refineries, works, etc., in the Transcaucasian provinces, 900 for the refineries in the Baku district, and the rest for kerosene in the Baku district. In addition, 600 waggons were given for the direct transport of petroleum products to the interior of Russia.

ROUMANIAN NOTES.

Fire at Tintea.—On the 16th of April, a serious fire destroyed several productive wells at the Tintea field.

The Concordia Company.—Beginning from the 11th of this month, the administration of this company will be transferred to Bustenari.

The Aurora Company.—The sale of the refineries of the Aurora is adjourned until May 26th. There is every hope of the negotiations being settled favourably.

The Minimum Distance of Boilers from Wells.—A minimum distance of 25 metres separating the boiler from the oil well has been fixed by the Ministry of Industry.

The Maximum Price of Illuminating Oil.—The maximum price of illuminating oil, from the 14th of April, has been fixed by the Council of Ministers at 8·10 francs per 100 kilogrammes.

The Predeal-Teleajen Company.—Under this name a new company has been registered in Paris with a capital of 1,200,000 francs, for the exploitation of the various properties of Stefanesco and others.

Roumanian Oil and Japan.—For some time Japanese refiners commenced purchasing petroleum, and there are now rumours that a large contract for the supply of oil to Japan has been concluded with a large Roumanian company.

Increase of the Capital of the Steaua Romana.—As we have already announced, the Steaua Romana is about to increase its capital. From 30,000,000 francs the capital of this company is to be raised to 50,000,000 francs. The new shares are to be issued at 130 per cent.

Production.—The production at Moreni is stationary, amounting to 1,200 to 1,250 tons per day, of which the Regatul Roman produces 600 to 650 tons, the Astra 340 to 350 tons, and the Romano-American 140 to 150 tons. At Tintea the daily production amounts to 300 to 350 tons, of which Orion produces 200 to 250 tons. At Campina the daily production is now 850 to 900 tons a day, of which the Steaua Romana produces 700 to 750 tons, and the Regatul Roman 100 to 120 tons.

Roumanian Exports during February.—The total exports during February amounted to 41,876 tons, against 29,783 in February, 1909. The following products were exported:—

Crude, Residuals, Gas	Feb., 1910.	Feb., 1902.
Oil, etc.	1,636	965
Illuminating	29,973	22,629
Benzine	10,261	6,178
Paraffin	5½	10

The following countries participated in the Roumanian exports (in tons):--

England	6,713	Germany	426
Austria	1,271	Italy	2,857
Belgium	3,451	Holland	4,776
Bulgaria	112	Turkey	1,991
Egypt	8,237	Other Countries	14
France	12,028		

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Servian	6,700	Terek	5,200	Rock Light	4,100
Carpathian	6.700	Balakani	5,200	Lux	2,900
Roumanian	6,700	Oriflamme	5,200		

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LATEST QUOTATIONS OF PETROLEUM SHARES.

ENGLISH COMPANIES.

This list is restricted to companies who have paid dividends or who are producers.

Company.	Capital Paid Up.	Value of Shares.	Latest Prices.
Assam Oil	£310,000	£1	15/6-16/6
Bibi-Eybat Petroleum Co. ..	£380,000	£1	5/0-6/0
Californian Oilfields	£400,000	£1	5⅞-6
Commonwealth Oil Co. ..	£500,000 Pref.	£1	¾-⅞
,, ,, ..	£225,000 Def.	£1	⅝-¾
Lobitos Oilfields, Ltd. (£1) ..	£360,000	£1	36/0-37/0
Pacific Oilfields, Ltd. (£1) ..	£200,000	£1	23/0-24/0
Russian Pet. & Liquid Fuel ..	£500,000 6½% Pref.	£1	3/0-4/0
,, ,, ...	£600,000 Ord.	£1	3/0-4/0
Schibaieff Petroleum ..	£575,000 6% Pref.	£5	8/0-10/0
,, ,, ...	£575,000 Ord.	£1	1/6-2/6
Shell Transport & Trading ..	£2,300,000	£1	90/0-91/0
,, ,, ,, ..	£1,000,000 Pref.	£10	10⅞-11⅛
Spies Petroleum Company ..	£465,000	10s.	30/0-31/0

RUSSIAN COMPANIES.

Company.	Nom. Value in Roubles.	Latest Quotations.	
		Lowest Roubles.	Highest Roubles.
Baku Naphtha Co.	100	331	350
,, ,, ,, (issue of 1908) fully pd.	100	337	339
Balakhany Naphtha Co.	250	—	—
Caspian Society	1,000	4,525	4,550
Mazout Co.	250	—	—
Melikoff, A. C.	250	—	—
Mirzoeff Bros.	250	—	—
Naftalan Co.	250	—	—
Naphtha Co. "Kavkas"	250	—	50
Naphtha Trading Co., A. I. Mantacheff & Co.	250	128	129
Neft Co.	250	260	—
Nobel Bros.	5,000	11,350	11,400
,, ,, ...	250	—	598
Rops and Co. V...	250	315	316
Russian Naphtha Co.	250	—	—
Society Mazout	250	—	400
Ter-Akopoff Co.	250	—	—
Tumaieff & Co., J. G.	250	96	—
Volga-Caspian Naphtha and Trading Co	250	—	—
,, ,, ,, (Second Issue)	250	--	—

SCOTCH COMPANIES.

Supplied by Messrs. Maclean and Henderson, Stirling.

Company.	Capital Paid Up.	Value of Share.	Latest Prices.
Anglo-Persian Oil Co., Ltd., 6% Part Pref. (5s paid)	£150,000	£1	6s. 3d.
Do. 5% Deb. Stock	£600,000	£100	£95 5s. 0d.
Broxburn Oil Co., Ltd., Ord. 17/- pd	£235,000	£1	£1 18s. 3d.
Do. 6% Cum. Pref. ..	£100,000	£10	£12 3s. 9d.
Burmah Oil, Ord.	£1,100,000	£1	£5 11s 0d.
Do. Pref.	£250,000	£1	£1 8s. 6d.
Dalmeny Oil Co., Ord. (7 paid) ..	£37,800	£8 10s	£5 2s. 6d.
Do. 5% Pref. ..	£18,900	£7	£4 10s. 0d.
Oakbank Oil Co., Ltd., Ord.	£170,000	£1	£1 15s. 9d.
Do. Pref. (£1 paid)	£100,000	£1	£1 4s. 6d.
Pumpherston Min. Oil Co., Ld., Ord. (17s. paid)	£110,500	17s.	£8 2s. 6d.
Do. 6% Cum. Pref.	£100,000	£10	£12 16s. 3d.
Tarbrax Oil Co., Ltd. Ord. (£1 pd.)	£65,000	£1	£2 5s. 9d.
Do. 6% Cum. Pref.	£40,000	£1	£1 4s 6d.
Young's Paraffin Co., Ltd., Ord. ..	£452,808	£4	£3 4s. 0d.
Do. "B" Deb...	£150,000	£100	£169 0s. 0d.

DUTCH COMPANIES.

Company.			Latest Quotations. (per cent.)
Dordtsche Petroleum Industrie My.		Aand.	190
,, ,, ,, ..	Pref.	,,	214
Int. Roum. Petroleum Maatschappij ..	..	,,	25½
Royal Dutch Petroleum Co.	Old	,,	527
,, ,, ,, ...	New	,,	498
Mœara Enim Petroleum Maatschappij	..	,,	252
Oklahoma Petroleum Co.	Pref.	,,	133½
,, ,, ,, ...	Ord.	,,	51
Perlak Petroleum Maatschappij ..	..	,,	146
Sumatra Palembang Petroleum Maatschappij		,,	197½
Zuid Perlak Petroleum Maatschappij ..	Pref.	,,	180
Union Petroleum Co.	..	,,	93⅓
Bibi-Eybat Petroleum Maatschappij ..	..	,,	29
Russian Petroleum and Liquid Fuel Co.	..	,,	20
,, ,, ,,	Pref.	,,	21
,, ,, ,,	(6% Debs.)	,,	40
Schibaieff Petroleum Co. (Ord.) ..	..	,,	9
,, ,, ...	Pref.	,,	20
Shell Transport and Trading Co. ..	Ord.	,,	750
Tulsa Petroleum Co.	..	,,	93

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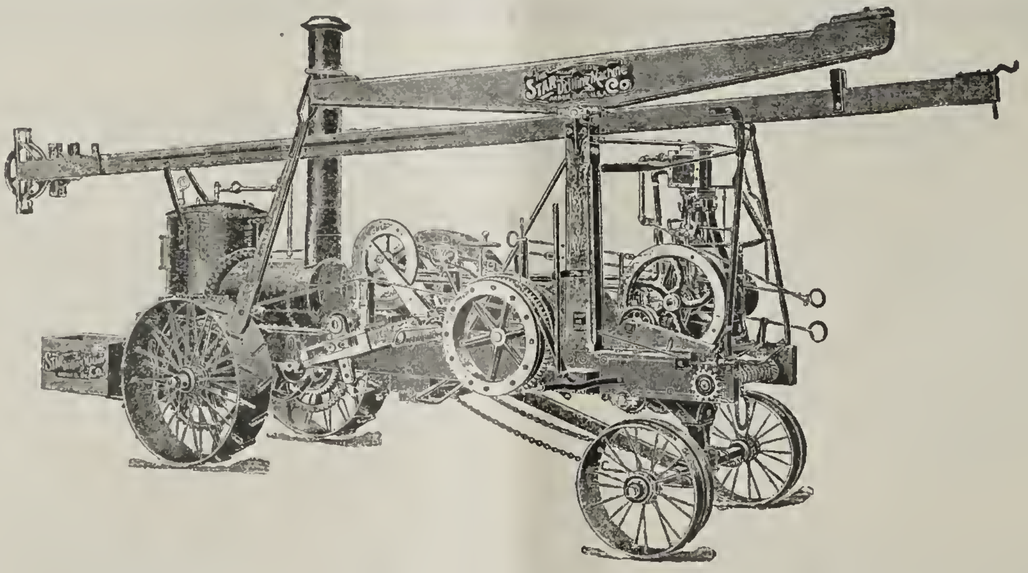

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THE
PETROLEUM REVIEW,
45, St. Mary Axe, London, E.C.
American Office: 150, Nassau Street, New York.

Saturday, April 23, 1910.

OPENINGS FOR BRITISH CAPITAL IN PETROLEUM ENTERPRISES.

NOW that we are in the midst of the oil boom, and now that it is also apparent to any careful observer that the present activity will be long lived, it is interesting, not to say instructive, to give a glance at the oil fields of the world in order to come to a conclusion as to where the main openings exist for the profitable employment of further British capital.

These openings may, of course, be divided into three distinct groups, in each of which not only do the speculative elements considerably vary, but there is also a vast difference in the amounts of the return for capital invested which may be expected to follow commercial development. In the first group come the well-known and already exploited oil fields of the world; in the second, we would place those fields known to be petroliferous yet not commercially developed, excepting, perhaps, in a very minor degree; and in the last group we have the vast territories in almost every quarter of the globe generally recognised to be petroliferous yet not actually proven.

Before taking any of these groups into account, we must recollect the one important fact, that within recent years the petroleum industry has extended in every direction. New uses have been found for its products, while the low grade crude oil, as well as the residue of distillation finds profitable employment as liquid fuel in almost every country. It is even safe to say that the consumption of oil and its products is only limited by production, even though this has established new records from year to year. Thus, then, any further great increase in supply will immediately be taken up and find a ready market in industrial circles, and the question of over-production of crude oil being possible is quite erroneous. True it is, that lack of transport facilities may temporarily create a crisis in either this or that field, but looking at the matter on the broad basis, there need be not the slightest fear on the point just mentioned.

Therefore we see a real cause for the present oil boom, and it is with the knowledge that this cause will long continue that I look forward to the activity in oil land exploitation likewise remaining in the forefront of industrial undertakings for a long period to come.

So far as the first group of oil lands are concerned—America, Baku and Grosny, Roumania, Galicia, and the Dutch Indies—it is undoubtedly well known that though there is considerable activity now being displayed therein, while additions to the present producing territory are constantly being made, without exception it can safely be said that the established fields are now settled down upon a basis of solidity, and constantly any new enterprise therein becomes immediately an integral part of the petroleum industry of those countries, which to-day is most profitably carried on.

Without doubt, it is the second group of oil enterprises which are attracting the greatest attention to-day. We have Maikop, for instance, which field I have just returned from; then there are the extensions of the Roumanian field, new areas in Egypt, the promising developments in far-away New Zealand, in Mexico, Spain, Italy, Northern and Western Africa, vast territories in Russian Sakhalin and Timor, and prospective extensive fields in Northern India. The British investor has so far shewn his confidence in these territories, and I for one will be sadly disappointed if events do not amply justify that confidence. The only thing to make certain of is that great care shall be taken in the selection of the territories to be drilled, and in the drilling itself, for the petroleum industry of the past has sorry tales to tell of fortunes that have been lost in the most promising fields owing to lack of care and foresight in these respects. If only investors will take care to look into these matters, my experience extending over thirty years in the petroleum industry, tells me that all will be well.

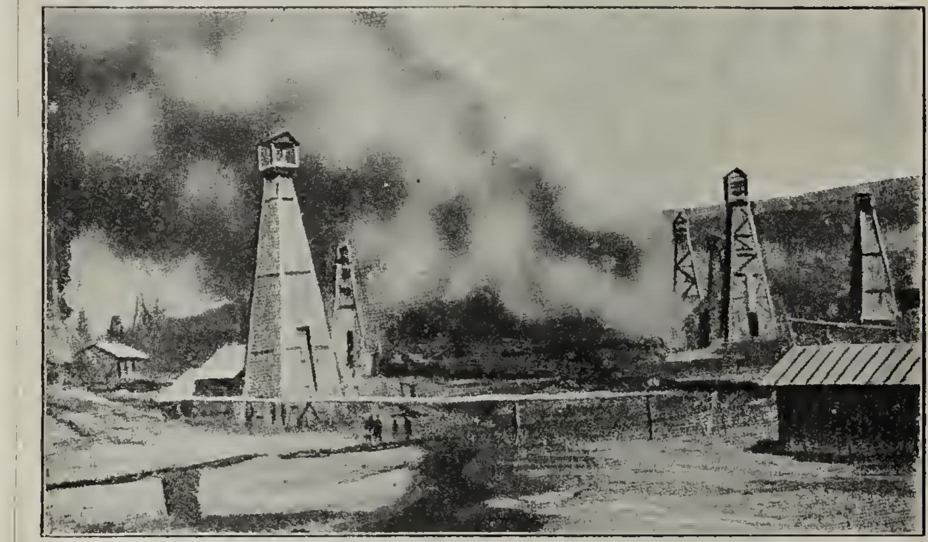
The most speculative part of the petroleum industry is of course the exploitation of those territories which as yet have not shewn their abundance of oil wealth, although believed to be promising. As I have many times said, the history of the oil industry is one long chapter of romance, and it may be that areas that are to-day looked upon with optimism only by those who desire to secure public confidence will one day be able to tell their tale of continuous success. The greater part of the American fields have been built up from the efforts of pure "wild-catting" for petroleum, and the highly successful nature of these results are such as to warrant the English investor, who desires "a run for his money," if nothing else, to support the exploitation of the lands of which their names are legion to-day.

Honesty of purpose is the mainstay of petroleum enterprise, and, given this, then my firm belief is that success awaits investors.

P Dvorkovitz

FIRE IN THE TINTEA OIL FIELDS.

A few days ago a serious fire broke out on one of the properties of the Tintea oil field and did considerable destruction, many derricks and equipment being demolished. Our photograph shews the fire at its height.



THE TIN PLATE MARKET.

Messrs. Norton, Owen & Co., of 4, Bishopsgate Street Within, London, E.C., report under date April 22nd, 1910, as follows:—

A large amount of business in oil plates has been transacted during the past week, and most of the makers are well booked. The exports have largely increased, as will be seen from the returns which we give below. We make prices to-day as follows:—

IC 18¾ × 14	124 sheets	110 lbs.	13/9 to 13/10½ per box.
IC 19¼ × 14	120 ,,	110 ,,	13/9 ,, 13/10½ ,,
IC 20 × 10	225 ,,	156 ,,	19/1½ ,, 19/3 ,,

F.o.b. Wales. Tin lining and iron hooping usual extra.

EXPORTS OF TIN PLATES.

	Month of March.		Three Months Ended March.	
	1909. Tons.	1910. Tons.	1909. Tons.	1910. Tons.
Russia	1,306	8	3,457	1,494
Norway	1,084	903	3,018	2,924
Germany	2,186	3,479	6,356	9,478
Netherlands ..	2,624	3,635	6,876	10,550
Belgium	755	592	2,251	2,436
France	1,670	1,599	4,679	3,975
Portugal	941	775	2,003	1,901
Italy	844	1,159	1,919	2,445
Roumania	1,645	2,485	1,971	2,937
China (including Hong Kong) ..	1,238	1,560	3,225	4,935
Japan	2,889	1,395	7,034	5,313
United States ..	3,918	6,411	12,573	18,185
Argentine Republic	929	1,209	2,290	3,645
British East Indies	4,870	4,028	13,660	12,681
Australia	1,746	1,528	5,279	6,856
Canada	1,295	1,706	8,053	5,607
Other countries ..	5,733	5,714	15,148	17,527
Total .. Tons	35,673	38,186	99,792	112,889

The BAKU RUSSIAN PETROLEUM COMPANY, Ltd.

The statutory meeting of the Baku Russian Petroleum Co. (1909), Ltd., was held on Tuesday week, at Winchester House, London, E.C.—Mr. Herbert Allen presiding.

In opening the proceedings, the Chairman, pointing out that the business of the meeting must necessarily be more or less a formality, said :—

Having got the old company out of the way, we are now steadily applying ourselves to the task of putting the new house in order. We have cleared away most of the débris of the old structure, and are now engaged, we hope, in laying a solid foundation for the new structure which is to take its place.

At present we have about 1,750 shareholders, practically all of whom were shareholders or creditors of the old company ; but, following upon the special settlement in the new company's shares, for which we have just applied to the Stock Exchange Committee, we anticipate an influx of at least 1,000 to 1,500 new shareholders.

When we finally launched the reconstruction scheme last November, and offered our shares to the members of the old company, the response was not at first very encouraging.

One of the surprises of the reconstruction, in face of all the opposition at one time threatened, too, was the remarkably small number of dissentient shareholders—*i.e.*, of "effectual dissentients" within the meaning of the act. Out of 3,400 shareholders, we had only 20 dissentients, and what has happened, in the case of the majority of them, is stated in paragraph 9 of our report.

I doubt if there is an instance on record of any dissentient shareholder in a reconstruction who has gone to arbitration with results satisfactory to himself.

If a reconstruction is a sound proposition in itself, the shareholders will always do better by taking up the shares than by becoming an effectual dissentient.

His usual experience, as I pointed out at one of the meetings of the old company, is to get an award of a few pence (or a few farthings) per share, and to find himself saddled with the heavy costs of both sides.

In paragraph 7 of the report we refer to the saving which has been effected by carrying the reconstruction through without the the aid of underwriting, for you may remember that, by clause 8 of the scheme, the directors were authorised to pay a cash commission of 6d. per share, or £37,500 in all. As a matter of fact, we have got the scheme through without paying any underwriting commission whatever.

It is not, however, only by accomplishing the reconstruction without the payment of underwriting commissions that important savings have been effected. Our preliminary expenses were at first estimated at £5,000, but later we felt justified in reducing that estimate by half. It now looks as if they would be well within even the reduced figure.

Then, by the method we are adopting in dealing with the Russian creditors, it is probable that the concessions we shall ultimately obtain in that direction, instead of being £40,000, as originally estimated, are more likely to be £50,000, and not improbably may exceed even that.

Altogether, in the matter of expenses and savings, we seem likely to be about £50,000 better off than we expected to be, apart from the fact that the liabilities are now materially lower than they were last July when the scheme was finally approved.

I do not think I am wrong in saying that this has been the most economical reconstruction of its kind ever carried through. I do not wish you to suppose that in a general sense the company has any complaint to make of its treatment in Russia, either by the official classes and departments or by those with whom we are brought into daily contact in the ordinary course of our business.

From the Government in particular, except in the matter of compensation after the troubles in 1905-6, we (and I believe nearly every company of the kind operating in Russia) have at all times received the most considerate treatment.

I should now like to say a word or two on the important question of working capital. The total number of shares so far subscribed is 1,300,000, and at 5s. per share that gives us £325,000.

Deducting £2,500 for preliminary expenses, and allowing £190,000 for the discharge of liabilities, we are already assured a cash working capital of no less than £132,500, which is nearly three times the initial cash capital that we relied upon when we first launched the scheme.

But beyond this we have still in the treasury 200,000 unissued shares—*i e.*, 100,000 shares credited as 5s. paid, and 100,000 shares for which we are precluded from taking less than 10s. per share.

It is for the call of this last 100,000 shares, at prices ranging from 10s. upwards that we have received a substantial payment in cash, as mentioned in the report.

The difference between the scheme as originally approved by the shareholders, and the scheme in its accomplished shape, is shortly this : that, instead of an initial working capital of £50,000, we are already assured of an initial working capital of over £150,000. That is because in every particular, when we had to give figures about which there was any doubt, we chose to understate rather than to overstate our case. When all our shares are subscribed, as they may be in the course of a few days, we should have a clear working capital available for development work of well over £200,000. Any misgivings, therefore, that may have originally been felt as to the adequacy of our cash resources are now happily dispelled.

You will be glad to hear, gentlemen, that within the last twenty-four hours I have been informed that a further 75,000 shares will be taken up at once, and that will leave us with only 125,000 more to issue. At any moment, in fact, the balance of the shares may be called.

But it is not only in the matter of cash resources that our anticipations—the anticipations upon which we based the reconstruction and upon which we offered the shares—have been more than realised. In every other particular, I believe, has that been the case.

And, before I leave the subject of the reconstruction, I should just like to remind you that we got no help in our task from the boom in oil shares. The most difficult part of the operation was carried through before the oil boom was thought of, and when oil companies' shares were a dead letter in the market.

Since we prepared the memorandum which accompanies our statutory report we have received some important news with regard to one of our properties—Plot 173 Saboontchi.

The development now reported is the tapping of a new oil body, never previously exploited by the company, at a depth of 267 sagenes (1,869 feet), in an old well which has just been deepened, after being abandoned at 250 sagenes (1,750 feet). That is to say, the well has been deepened by about 119 feet.

Our last news on this subject was that the well had spouted a few times and then settled down, and it is expected to yield about 3,000 poods of naphtha per day. This, at present low prices would mean nearly £20,000 worth of oil per annum, and under the terms of our lease about two-thirds of that should come to us.

The development is of importance, not merely because of its immediate effect upon the production of this particular well, but because of the prospect it opens up for the whole plot, on which we have several wells capable of being deepened, and ample scope for the sinking of new wells.

For some years Plot 173 was one of the most remunerative in the possession of the company. In 1904, for example, it gave us no less than 7,500,000 poods of oil (equal, at 20 copecs per pood, to over £150,000 sterling), but of late it had come to be regarded as of little or no account.

That was because we did not know of the oil stratum at 267 sagenes. So you will see what an important influence this strike may have upon the future fortunes of the company.

We only need to get 12,500,000 poods per annum from the whole of our properties to make a success of the company, and yet this one insignificant part of the whole has shewn itself capable of giving 7,500,000 poods.

It may interest some of our new shareholders (who doubtless will read a report of these proceedings in the newspapers) to know that this concern is not merely *searching* for oil, but is already a large *producer*, with sales amounting to about £3,000 per week, although our affairs are, comparatively speaking, at a temporary standstill.

We have over 30 wells in various degrees of production ; six good new wells on which work is suspended ; about half-a-dozen which need deepening or repairing ; and about 30 more, many of which should be on the production list.

As we have told you before, our future depends on three crucial condition—(1) the productivity of the properties ; (2) the local management ; and (3) the price of naphtha—and we have already given our views very fully on all these points. About the productive capacity of the properties there should be no misgivings, according to the opinions of the experts.

As regards the question of local management, we believe we have every reason to be satisfied with the policy of the Creditors' Administration, and so long as that is the case we shall not attempt to disturb it.

PETROLEUM IN INDIA.

By the French Consul-General.

The petroleum production in India has for the last few years greatly improved, still it forms only one-quarter per cent. of the world's production.

The following table indicates the enormous increase in the Indian production during the last five years :—

	Gallons.		Gallons.
1890 ..	4,132,287	1906 ..	140,553,122
1895 ..	13,003,748	1907 ..	152,045,477
1900 ..	37,729,211	1908 ..	176,646,320
1904 ..	110,491,382		

In 1909 the production may be estimated to have reached a total of 200,000,000 gallons, five-sixths of which forms the production of Burmah.

The petroliferous strata of India are principally situated in the mountainous ridges of both extremities of the Himalayas :—

(1) In the Tranian ridges in the west, including Punjab and Beluchistan as well as in a part of the territory situated outside Britain's dominion near Persia ;

(2) In the Arakan ridges in the east, including Assam and Burmah. From this side the line is continued up to petroliferous strata of Sumatra, Java and Borneo. In both ridges petroleum is found in the tertiary strata.

Punjab.—The districts in which petroleum has been found are :—Shapour, Thelum, Bannou, Kohat, Rawalpindi, Hazara, and Koumaoun. The production is still very limited, only reaching one or two thousand gallons a year. In 1908 exploration in the Mianwali district near Yaba was made by order of the Punjab Government, but without any encouraging results.

Beluchistan.—Here explorations have proved an abundance of oil of very good quality near Khotan and Moghal Rot, although until lately no systematic exploitation has yet begun.

Assam.—The first indications of petroleum have been discovered in 1865, and an abundant source of very good oil was found near Makoum in 1867, but no serious efforts to the exploitation of the district were made until 1899, when the Assam Oil Co. was formed with a capital of £310,000, and the production at once rose from 623,372 gallons in 1899 to 1,756,759 gallons in 1902, 2,585,970 gallons in 1904, and 9,733,110 gallons in 1905. The petroliferous areas are situated :—(1) at Tipam Hill to the north of Ditring ; (2) in the country between Ditring and Disang ; (3) in Makoum between the rivers Dirak and Tirap. This latter-mentioned district has all the probabilities of very profitable and extensive development.

Burmah. - Burmah, of all the Indian Empire, is the richest district in petroleum wealth. The most productive sources are situated to the east of Arakan Yoma in the Irrawaddy valley. They form a belt expanding from the district of Magwe, with its celebrated exploitation of Yenangyaung up to Pakokku, where is situated the exploitation Yenangyat. Abundant, but as yet unexplored, sources are also situated in the south and the north of the Chindwin valley. The enormous development of the last few years, however, is entirely due to the three sources of Yenangyaung, Yenangyat, and Singou.

In the first of, these exploitation has been conducted for a hundred years. In 1886 the production amounted to about 2,000,000 gallons, but beginning from 1887 it steadily reached 130,000,000 gallons per year at the present time.

In 1891 the Burmah Oil Co. took over the exploitation of the Yenangyat sources. The production in 1907 was only 324,000 gallons, but it has increased to over 25,000,000 gallons at the present time.

Singou was discovered by the Burmah Oil Co. as recently as 1901. In 1902 the production totalled 174,880 gallons—it amounts now to 50,000,000 gallons per year. There is oil also in the isles situated on the coast of Arakan. The total production of Burmah now amounts to about 180,000,000 gallons per annum.

The rapid increase in the consumption of petroleum has induced the Indian government to thh edict of a certain number of laws regulating the petroleum industry in India. These measures are condensed in the Act No. XII. of 1886.

Petroleum pays in India an entrance duty of one anna per gallon, bringing in an appreciable revenue which amounted in the years 1901-1903 to over 53,000,000 rupees per year. Owing to the development of the local industry this revenue has now considerably diminished and amounted, in 1905-1906, to 36,600,000 rupees.

The imports of petroleum and products into India form an important factor in the commerce of the country. In 1897 to 1903 they amounted in the average to 85,500,000 gallons per year, of a value of £2,314,801. The two principal importing countries are Russia and the United States (93·5 per cent). The Russian imports have a tendency to supplant more and more the American imports. In 1897-98, Russia's part of the total imports was 58 per cent., the American 30 per cent. In 1901-02 the Russian imports amounted to 85·5, the American to 9·5 per cent. At present the Russian imports amount to 75 per cent. (65,000,000 gallons), American 19 per cent. Lately the imports from the Dutch Indies began to supplant a considerable part of the Russian and American imports.

Mirzoeff Bros. and Co.—At the yearly meeting of this company at Tiflis a dividend of 20 per cent. has been declared on the capital of 3,210,000 roubles The estimate for this year includes the expenditures of 1,629,932 roubles on exploitation and 1,041,427 roubles on production.

A Caucasian Petroleum Administration.—The Ministry of Trade and Commerce is elaborating a project of alienating the administration of the Baku petroleum district from the hands of the Governor and the Caucasian Mining Department, and of giving it over direct to the Ministry.

THE USE OF LIGHT PETROLEUM PRODUCTS FOR INDUSTRIAL PURPOSES.

By PROF. K. KHARITCHKOFF.

(Specially Translated for the "Review" from the "Neftianoie Dielo.")

The development of the motor industry and the progress of aeronavigation are necessitating a large and continuous supply of motor fuel, and especially of benzine and other light petroleum products, such as petroleum ether and rigolene. The Grosny district, producing a petroleum very rich in light products, must necessarily become one of the most important centres of supply of motor fuel. The new Maikop fields, judging from the oil spouted on the properties of the Baku Black Sea Petroleum Co., also appear to suggest the development of a rich supply of benzine, and there is every reason to believe that in Maikop, as well as in Grosny, benzine will be, if not the principal, at least one of the most important products of the petroleum industry.

At a meeting of the Terski Imperial Technical Society held at the end of last year, a very interesting report of the engineer Kartasheff was read on "Grosny Petroleum Product 'Aeroline' for Aeromobiles." The author pointed out that the calorific value of petroleum fractions rises in inverse relation to the specific gravities, and that it is therefore important to raise the qualities and quantities of the lighter fractions (aeroline) by avoiding losses in the distillation and in storing. The development of aeronavigation, continued the author, was intimately connected with the technical development of petroleum refining. The product aeroline, mentioned in the report, of specific gravity 0·620 and even 0·590, naturally has to be kept in hermetically closed vessels made of thick metal and able to stand high pressure. Besides its use as fuel in aeronavigation, it also can be used for refrigerators and for lighting purposes. To avoid the loss of the lightest fractions in the distilleries, Kartasheff recommends the erection on the works of hermetically closed reservoirs and receivers and the application of refrigerators for condensing the vapours and gases, which otherwise are lost in the air. But taking into consideration that enormous losses of light vapours and gases are ever proceeding, especially in summer-time on the fields, it would be advisable to apply the use of condensors and cooling machines on the spot of production.

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BAKU PRODUCTION DURING MARCH.

The total production of crude oil in Baku during March amounted to 41,287,000 poods

The production of the leading firms during the month was as under :—

	Poods.
Nobel Bros.	4,700,000
Caspian and Black Sea Society	2,700,000
Mantascheff and Co.	2,400,000
Caspian Society	2,100,000
Baku Petroleum Co.	1,900,000
Zoubaloff	1,600,000
Mirzoeff Bros.	1,400,000
Pitoeff and Co.	1,200,000
Russian Petroleum Co.	1,100,000
Mussa-Nagieff	1,000,000
Aramazd Co.	1,000,000
Russian Nafta Society	900,000
Moscow-Caucasian Co.	900,000
Kavkaz Co.	700,000
Bibi-Eybat Petroleum Co., Ltd.	700,000
A. S. Melikoff and Co.	700,000
Baku Russian Petroleum Co., Ltd.	600,000
Russian Petroleum and Liquid Fuel Co., Ltd.	600,000
European Petroleum Co., Ltd.	500,000
Assadulaeff	500,000
Moscow-Volga B. E. Co.	500,000
Ter-Akopoff Co.	500,000
T. M. Schibaieff Co.	500,000
Benkendorf and Co.	500,000

◆

Activity in the Midway Field.—The Sunset-Midway Field of California is now the centre of very great activity, and at the present time no less than 140 wells are going down. At the moment the limits of the field are not defined, for large self-flowing wells are being brought in in almost every hand.

THE TEXAS COMPANY,
Transporters, Refiners and Distributors of Petroleum and its Products.
General Offices:—HOUSTON, TEXAS. Export Department:—Whitehall Building, NEW YORK.
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London Offices:—BILLITER BUILDINGS, 22 BILLITER STREET, E.C.

AMERICAN EXPORTS FOR FEBRUARY.

OFFICIAL STATISTICS.

According to the official publication of the Washington Bureau of Statistics, the exports of petroleum from America from the various ports during February were as under:—

	1910. Quantities. Gallons.	1909. Quantities. Gallons.
Crude—		
Baltimore	—	—
Boston and Charlestown	—	—
New York	1,413,912	1,642,917
Philadelphia	203,210	1,131,689
Galveston and Sabine	2,584,230	2,014,431
San Francisco	5,360,533	—
Totals	9.561,885	4,789,037
Total value for the month, 1909		$237,003
,, ,, ,, 1910		$248,715
Naphthas—		
Baltimore	4,729	2,730
Boston and Charlestown	—	—
New York	4,233,746	396,888
Philadelphia	10,000	1,000
Galveston and Sabine	20	6,000
San Francisco	12,264	2,365
Totals	4,200,759	408,983
Total value for the month, 1909		$63,089
,, ,, ,, 1910		$313,090
Illuminating—		
Baltimore	—	1,767,577
Boston and Charlestown	2,733	52,408
New York	42,239,266	37,569,452
Philadelphia	15,316,005	21,555,722
Galveston and Sabine	4,294,562	3,580,642
San Francisco	4,324,350	4,572,827
Totals	66,176,916	69,098,628
Total value for the month, 1909		$4,628,413
,, ,, ,, 1910		$3,975,150
Lubricating—		
Baltimore	435,950	447,650
Boston and Charlestown	7,881	24,966
New York	7,751,656	6,223,763
Philadelphia	2,696,980	3,689,775
Galveston and Sabine	63,629	3,532
San Francisco	14,369	23,274
Totals	10,970,465	10,412,960
Total value for the month, 1909		$1,286,160
,, ,, ,, 1910		$1,409,124
Residuum—		
Baltimore	—	—
Boston and Charlestown	—	33,169
New York	43,244	15,100
Philadelphia	2,098,467	804,340
Galveston and Sabine	6,100,270	2,751,691
San Francisco	—	—
Totals	8,241,981	3,604,300
Total value for the month, 1909		$118,966
,, ,, ,, 1910		$306,565
Total Mineral Oils—		
Baltimore	440,679	2,217,957
Boston and Charlestown	10,614	110,543
New York	55,681,824	45,848,120
Philadelphia	20,324,662	27,182,525
Galveston and Sabine	13,042,711	8,356,296
San Francisco	9,711.516	4,598,466
Totals	99,212,006	88,313,908
Total value for the month, 1909		$6,333,631
,, ,, ,, 1910		$6,252,644

BORE HOLES FOR OIL
Contracted for by
JOHN M. THOM,
Canal Works,
Patricroft, MANCHESTER.
CONTRACTOR TO H.M. GOVERNMENT.

THE VALUE OF ROUMANIAN PETROLEUM PRODUCTS DURING 1909.

INTERESTING STATISTICS.

The value of petroleum products consumed in the country and exported abroad during 1909, in comparison with the values for 1908 and 1907, can be seen from the following table:—

Home Consumption.

	1909. Tons.	1908. Tons.	1907. Tons.
Benzine refined	774	16·00	123,840
,, unrefined	13,267	8·00	1,061,360
Illuminating oil	39,451	8·50	3,353,335
Lubricating refined	6,730	24·00	1,615,200
,, unrefined	8,968	5·00	448,400
Residuals	366,703	3·80	13,934,714
Paraffin	675	100·00	675,000
Total	436,568	—	21,211,849
	1908.		
Benzine	9,055	15·00	1,357,800
Illuminating	38,422	8·00	3,073,760
Lubricating	6,837	24·00	1,640,088
,, Unrefined	5,313	5·50	292,215
Residuals	347,323	4·10	14,240,243
Total	406,950	—	20,604,106
	1907.		
Benzine	5,689	18·00	1,024,020
Illuminating	38,467	8·50	3,269,695
Lubricating	9,226	20 00	1,845,200
Residuals	332,999	3·60	11,987,964
Total	386,381	—	18,126,879

Exports.

	1909. Tons.	1908. Tons.	1907. Tons.
Benzine	108,218	13·00	14,068,346
Illuminating	261.637	6·00	15,698,220
Residuals	49,715	4·00	1,988,600
Paraffin	545	60·00	327,000
Total	436,568	—	21,211,849
	1908.		
Benzine	122,860	17·00	20,886,200
Illuminating	263,633	7·25	19,113,390
Residuals	78,765	4·60	3,623,190
Total	465,258	—	43,622,780
	1907.		
Benzine	89,522	19·00	17,009,180
Illuminating	262,489	65·00	17,061,785
Residuals	78,423	55·00	4,313,265
Total	430,434	—	38,384,230

As seen from the above table, although the quantity of products consumed inland has increased, their total value has but very slightly increased, while that of the exported products has decreased by 11,500,000 in 1909 against 1908. The following table gives the values of petroleum products consumed at home and exported abroad for the last six years:—

	Francs.	Francs.	Francs.
1904	7,843,512	10,696,620	18,540,132
1905	9,657,470	14,466,970	24,124,440
1906	14,766,048	30,572,310	45,338,358
1907	18,126,879	38,384,230	53,511,109
1908	20,604,106	43,622,780	64,226,886
1909	21,211,849	32,082,160	53,294,009

The total value of petroleum products consumed inland and exported has thus decreased from 1908 to 1909 by 11,000,000 francs or by 1·7 per cent.

PETROLEUM DEVELOPMENTS IN THE . . . . . . SAN JOAQUIN VALLEY OF CALIFORNIA.

Special . . . .
Report by . . .
Mr. PAUL W.
PRUTZMAN. .

THE COALINGA FIELD.

Under the direction of Californian State Mineralogist, Lewis E. Aubury, a general reconnaissance of the oil districts of the San Joaquin Valley has just been completed by Mr. Paul W. Prutzman, assistant in the field, whose brilliant series of articles in the Review upon California developments some years ago will be recollected.

The State Mining Bureau is now engaged in preparing maps of all the different oil districts in the State, and is also at work upon a long report in which detailed information will be given of the different districts. As the work progresses, general reports will be published in the Review. The first of these reports is as under:—

To understand conditions at Coalinga it is necessary to bear in mind the topography of the country. From 6-21-15, which is at the southern extremity of the developed field, the foothills run due north for about seven miles, following closely the east line of township 20-14. At the south-west corner of 19-15 they turn sharply to the east, and run almost due east for about three miles, or to the centre of the south line of this township, where they again bend to the north. From the apex of the curve thus formed, a spur of the hills extends in a south-easterly direction for several miles.

This topograpical arrangement leaves, between the foothills and the spur, a plain some six miles square, surrounded on three sides by the hills, and bounded on the south by the railroad. The town of Coalinga is on the railroad and close to the foothills, and therefore near the south west corner of this plain, which is smooth, and slopes very gently from north-west to south-east.

Oil has been found on the lowest portion of the foothills, and extending out for a varying distance from them, on the north and west sides of this plain, as well as on the outer or valley face of the foothills where they turn to the north, on 19-15, and on the same side of the spur range. The "East Field" is that portion lying on the valley slope of the north limb, the "South-east Extension" on the east or valley slope of the spur. The "West Field" lies on the inner portion of the hills west and south of the plain. The "South Field" is the prospective territory south of the railroad, following the hills for an indefinite distance.

The length of the developed field, extending from the railroad north, then east, then north again, is some thirteen miles. The extension to the south-east is proven up for length of approximately a mile and a half. The width of the actually proven belt varies from three-fourths of a mile at the lower extremity to about two and one-half miles at the widest part, with an average of perhaps two miles.

Extension of the Coalinga field to the north seems to be pretty definitely barred by the operations of the Imperial on 4-19-15, which are said to have resulted in dry holes, and in finding an order of formation quite different from that found further south. Some maintain, however, that the sands at this point lie farther back in the hills, and at least one company is drilling on section 8 in this township on such a theory.

To the north-east, the operations on 12-19-15 have resulted mostly in water wells, but whether this is due to flooding of the sands from above (that is, from higher up on the formation), to the difficulty of handling surface water, or whether the actual water line has here been reached, it is yet too soon to tell. To the east of the old wells, on 28-19-15, operations are slowly being pushed further out, and it does not appear that any limit has yet been set to drilling in this direction. The same may be said of the work along the outer face of the spur: work is gradually being carried south and east, and while drilling here is very deep and correspondingly expensive, the new well of the Coalinga Mohawk offers encouragement in this direction to operators with means enough to carry on this heavy work.

West of 28-19-15, the new well of the Empire of 32 has bridged, in part at least, the gap supposed to exist between the east and west fields, and proves up the territory lying immediately west. Figuring from the depths of the Limited wells on 29 and of the Empire (some 2,700 feet), it is evident that the sands here have a sharp pitch to the south-east, and as the formation on 28 also pitches in the same direction, but on a much higher level, more work will be required to finally prove whether the Empire sands pass under those on 28, or rise again to meet these and form an anticline, and in the latter case, whether it will be productive on the west slope. There is still a gap of almost a mile between the Empire well and the nearest producer on the east. When visited, this well was producing about 500 barrels of 18° oil, but there was a great deal of sand in the casing, and as this has since been cleaned out, it seems likely that reports of considerably larger production at present are correct.

The northern line of the old "West Side" field, along the north line of 31-19-15, is definitely marked by old work, some of the original Coalinga wells having been here, but to the south the limit has not been set. The Aztec, in the south-east corner of 31, have lately gone into the first sand, and both the California, Coalinga, and M. K. and T. have lately brought in good producers on 8-20-15. The latter wells are 2,800 and 2,940 feet respectively, which indicates a normal degree of dip to the sand, both from the north and the west.

This work is the farthest out on the flat, and the old argument as to whether the producing sands extend across the flat and to the wells on the outer side of the spur, is yet unsettled. The 2,800 feet well of the Peerless Consolidated on 10, and the deep test of the Claremont, on 4, said to be 4,100 feet or better, without oil, would seem to indicate that the western limb of this anticline will not be productive, which corresponds well with the theories in the case.

On the upper or west side of the West field, production has heen carried back beyond the centre line of 1 and 12-20-14. These wells are shallow, only 700 to 800 feet, but are good producers of heavy oil, and there is no way of determining how much farther back the profitable sands may extend. On the south side of Los Gatos Creek the formation seems to be rather lower than elsewhere along this back age, and here drilling has been carried back well toward the centre of 14, with good results so far, and no definite bound to the field so far in sight in this direction.

On 25-20-14 the Coalinga Western have undoubtedly gone back to the upper edge of the productive sands, and while work along the east line of 26 has resulted in some good wells, it seems doubtful whether profitable drilling can be carried much farther to the west here, unless indeed a lower sand can be found, of which some indications appeared in the last well drilled on the old Blue Diamond twenty, in section 26.

Due east of this work, on the eastern frontier, the Nevada Petroleum have a string of good wells down the centre line of 30-20-15, at about 2,400 feet. Adverse water conditions were encountered here, and No. 1, which had generally been counted as a lost hole, has finally been cemented and put on the pump; these wells appear to be doing 200 to 400 barrels each, of a medium grade oil.

Just in the edge of the town of Coalinga the Valley have a 3,200 feet well which has some oil, but which up to the present has not been freed from water enough to determine its value as a producer. If this well can be finished an area of at least two square miles will be added to known productive territory.

On the much boomed section 6-20-15, operations are rather at a stand. This territory suffered greatly at the hands of certain operators who seemed more anxious to raise the value of their stock than to conserve the value of their property, with the result that haste and careless drilling have brought about very serious water troubles. It seems a great pity that such promising territory should be abused and perhaps ruined in this offhand manner, but there is reason to hope that if the operators can be brought to unite on protective measures, a greater part if not all of the damage can be undone.

S ction 6 is surrounded on three sides by lands of the K. T. and O. Co. on which nothing is being done, and the nearest prospecting has been on 12-21-14, where in addition to several old holes, two or three have been drilled within a short time, but without result. Opinions differ as to the reasons for this failure, but it seems to be generally accepted that the formation is too much broken to hold out hope for any profitable production. There is now no work under way on the north side of Warthan Canyon.

On the south side of the canyon, on 18-21-15, several rigs are at work, and up Jacalitos Canyon, but near its mouth, four or five others, but none of this work has yet reached the conclusive stage. Further up, the 1,600 feet hole of the Jacalitos, and the 2,800 feet test of the Peoples Associated, both dry, seem to stop any extension in this direction, though one rig is still at work on 32-21-15.

Out from the mouth of Jacalitos Canyon but one rig the Blair, is at work, but this hole is expected to prove up quite a stretch of country, if successful. They are now 2,000 feet. Two rigs are said to be at work on the Lake side of the Kettleman Hills. The Southfield Oil Co. have two holes at 1,600 and 1,400 feet respectively, on the Kreyenhagen Ranch, 33-22-16; this is on the old Black Mountain lease, where a little oil is still in evidence in the old hole. South of this, and considerably farther out, the El Cerrito lately quit at 4,100 feet with a dry hole.

At McKittrick there is little that is new. This field has had the reputation of being spotty, but later work has shewn that it is merely very narrow, and further, the producing strip is not altogether straight. The upper or south-west bound of the field was shewn years ago, a string of dry holes having been drilled all along this side, and extension to the south-east seems to be barred by the deep hole of the Provident on the old Dabney lease, which was dry.

A good many of the shallow wells at this end of the field have gone over to water, but the old Shamrock gusher is still putting eight or nine hundred barrels of clean oil into the tank every day—one of the most profitable wells ever drilled in this State. All the property north of this has held up remarkably well, and acre for acre there is probably no better producing ground in any of the fields than a narrow strip running north-west from the Shamrock to the East Puente on 11. The Jackson have a good heavy oil producer at this end, and the K. T. and O. a couple of fair wells on the old Foltz lease, but north of this all work has resulted in absolute failure, and there seems little or no hope of extending production in this direction. Some prospecting is being done a little to the north-east, and therefore farther out toward the flat, and some five miles north-east, on the Temblor Ranch, a small shallow sand pool has been found, but this seems to be very limited in extent, and is almost surrounded by deep failures.

The topography of the McKittrick field somewhat resembles that of Coalinga, in that there is a spur from the main hill range, extending in a south-easterly direction, and joining the main hill range north of the developed field. Some prospecting has been done on the west or inside of this spur, but without encouragement. On the outer or valley side of this spur, the U.S. Oil and Mining brought in a small producer some time since, and lately the Nacirema got a 40 or 50 barrel well of 12° gravity oil on this same section—6-30-22, and there seems some hope of a narrow belt of heavy oil territory on the outside of this spur. The wells drilled between the spur and the main hill range, on the flat near Olig station, got nothing but water, and it seems quite certain that the rising limb of the outer anticline is barren.

From the southernmost wells in McKrittick to the low divide which separates McKittrick from Midway, is but a couple of miles, and from this divide an uninterrupted view of a most remarkable scene of prospecting is presented. Midway, like McKittrick and Coalinga, consists of a stretch of the lowest foothills, with a spur extending in a south-easterly direction, leaving a generally flat plain, falling toward the south; in Midway, however, this plain is of much greater extent than at either of the other fields.

The most northerly development which has produced any oil is on 14-31-22, where the Bear Creek have an oil of about 14° gravity at some 1,500 feet. A mile south-west of this, at about the centre of the south line of 15, the Barnsdale, Drake and Yancey Co. have a heavier oil at about the same depth. The development farthest up the sand is on the east line of 27, where the Cunningham and Maxwell outfits have each a very heavy oil at some 1,600 feet. South-east of these wells, the Amber have one, and the Santa Fe and Associated several wells, all at a depth not much greater, and with oil ranging about 16° gravity. The strike of the producing formation is apparently about south-east, and as you go down the dip from any point, that is, go north-east, depth of course increases, production per well appears to increase, and gravity of oil rises. The Pioneer Midway have a 2,500 feet well on the south-west corner of 30-31-22, while the Mays Oil Company's flowing well, lately brought in, is one half-mile east, on the centre of the south line of this section. This well is said to produce oil of 24° gravity.

The south-west corner of this township, that is, of 31-31-23, seems to be well up towards the edge of the producing sand. Here a Santa Fe well is flowing some eight or nine hundred barrels of 21° gravity oil from a depth of 1,400 feet. The formation appears to dip very sharply here, as the nearest well to the east, less than a quarter of a mile distant, is about 2,000 feet deep, and a Hawaiian well near the centre of the section is over 2,300 feet. Near the centre of the west line of 32, the next section, the California Midway have a well flowing by heads at about 2,800 feet; in fact, all the wells in this ground flowed more or less when first brought in, though this does not seem to last long. There is no production east of this well in township 31.

The most interesting new developments are at the southern extremity, where the Standard have a fine flowing well and a couple of smaller ones at about 2,400 feet, near the centre of 30-32-24, and north-east, or directly across the formation, a well near the centre of 28 about which little could be learned. All sorts of extravagant stories are afloat about the production of this well on 30—it appeared to the writer to be doing about a thousand barrels a day, and is said to be a steady producer. The well of the Honolulu, which started off as a gasser and turned to oil, is almost due north-east, on Section 10. This well is still being worked on, and flows by heads; it is said locally to be making about 500 barrels, and is producing a 28° gravity oil. This well is on the outer flank of the spur range, and hardly proves up to the territory intervening between this section and Moron, though taken in connection with the Standard's gas well on 26-31-23, it creates a strong probability that production will be had along this side of the spur. This gas well would rather appear to be on the crest of the secondary anticline.

At Sunset the hills bend sharply to the east, and there is no spur range. The original wells were in the corner of this bend, and rather high up on the formation. Most of these old wells, south of 2-11-24, have been abandoned, though the Union is still pumping a few, stripped of their derricks. These wells were very shallow, from six to nine hundred feet, and as there was a good deal of pressure, the sand appears to have blown itself out. New development has been largely to the north, the best of the new wells being those of the Wellman, Ethel D. and K. T. and O. Co. along the north line of 1-11-24. The production of these wells has been a good deal exaggerated, yet making due allowances they are very healthy producers indeed, and as they are brought in at about 1,000 feet, the territory looks very good. A short distance to the south-east two or more operators have gone to about 2,200 feet before reaching the sand, and have not yet got to the stage where the capacity of the sands at this point is known, but if this sharp dip is maintained, work in this direction does not look as promising as it did some time since. However, it is quite possible that this drop in the formation is only local, and extension to the east will not be barred until further results are obtained.

Several rigs are now working along the easterly turn of the hills, following in the general way the centre line of 11-23 and 11-22, and while no oil has yet been had, there are hopes of an extension in this direction. Some of the old work, while it was probably too far back to have ever been profitable, indicated that the formation which produces at Sunset extends unbroken in this direction, though whether it carries profitable quantities of oil cannot, of course, be known.

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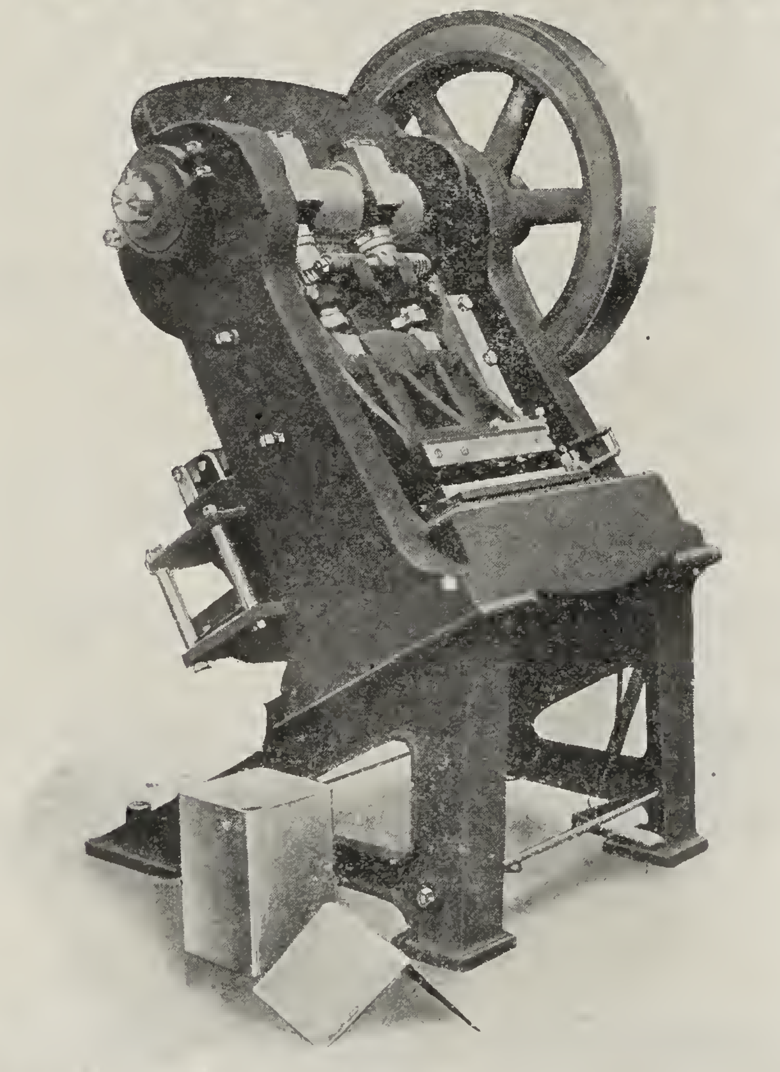
PETROLEUM IMPORTS INTO THE UNITED KINGDOM DURING MARCH.

THE SHIPMENTS INTO VARIOUS PORTS.

The imports of petroleum and its products into the various ports of the United Kingdom during March amounted in all to 26,557,060 gallons. The figures are as under:—

Port.	Illuminating.	Lubricating.	Residuals.	Gas Oil. (Solar.)	Benzine.	Fuel Oil.	Other Descriptions.
Aberdeen	9,820	3,120	—	—	—	—	—
Barrow	57,440	—	—	—	395,520	—	—
Belfast...	809,820	1,350	—	—	—	—	500
Bristol	2,258,410	156,300	—	—	—	—	—
Cardiff	—	5,210	—	—	—	—	—
Cork	—	110	—	—	—	—	—
Dublin	12,500	—	—	—	—	—	—
Dundee	390	5,720	—	—	—	—	—
Glasgow	—	346,840	10,400	—	—	—	10,040
Gloucester	—	160	—	—	—	—	—
Goole	—	2,250	—	—	—	—	—
Grangemouth	24,000	5,910	—	—	—	—	—
Grimsby	—	4,800	—	—	—	—	—
Hartlepool	2,100	800	—	—	—	—	—
Harwich	—	460	—	—	—	—	—
Hull	1,816,000	346,630	—	—	—	—	109,240
Leith	26,160	87,660	—	—	—	—	—
Liverpool	1,307,300	759,080	12,000	292,410	43,650	—	16,240
London	4,159,230	1,305,190	—	4,832,280	6,106,060	504,010	2,730
Manchester	4,000	629,060	—	—	—	—	41,180
Middlesbro'	—	2,240	—	—	—	—	—
Newcastle	4,000	1,310	—	—	—	—	—
Newport	—	4,790	—	—	—	—	—
Southampton	—	14,940	—	—	—	—	—
Swansea	—	5,540	—	—	—	—	—
Westport	—	160	—	—	—	—	—
Totals	10,491,170	3,689,630	22,400	5, 24,690	6,545,230	504,010	179,930



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The American Oil Market.

New York, Week ended April 9th.

Of principal interest in the week's review is the announcement of a further decline of 5c. in the higher grades of Pennsylvania crude, establishing them at $1·35. This is the first change in the oils of that classification since January 7th, and is regarded as a revision more to the basis of crude of other fields. Nearly all of the Eastern petroleum fields have been under more active development, says the *Oil, Paint and Drug Reporter*, but while completions are in excess of those previously noted the new production has not been up to the former aggregate. Returns from the more important districts record little of noteworthy interest. Operators in the high grade fields have planned a campaign which will subject to thorough tests many of the outlying sections in which the petroleum possibilities are more or less of an unknown quantity. West Virginia probably holds keener interests for experimental drilling than any of the other Eastern fields. Calhoun and Roane counties contain considerable territory which has not been fully tested, and efforts will be made during the next few months to determine their worth as sources of production. Lincoln county is also a centre of increasing activity; while the wells there seldom average beyond 30 barrels a day, their staying qualities generally insure the owners of a good return upon their investment. Attempts to find an extension to the Shinnston pool of Harrison county continue to meet with disappointing results. The capacity of the pool continues to decline, a late report placing it below 3,000 barrels a day. There is nothing to eclipse the record of the deep sand formation of Fairfield and Perry counties of South-eastern Ohio, and town lot developments at Bremen in the former and at Junction City in the latter are becoming more of a feature of operations. Fairfield county was the scene of some completions of encouraging capacity, three of the wells drilled during the week being credited with a daily total of 250 barrels. During March there was a slight gain in completions and new production in North-western Ohio, and the average of the new wells was higher, 19·23 barrels, against 17·70 barrels for February. In the Indiana end there were fewer completions and a reduced new production aggregate last month, and the average per well fell from 32·81 barrels in February to 31·54 barrels. Operations in Illinois are on the increase with the more favourable field conditions. While Crawford county leads in completed work, Lawrence county continues to furnish the most encouraging production results. Outside of these two counties little drilling is in progress, Illinois field statistics for March recorded a decline of 30 completions, and of 1,247 barrels of new daily production, as compared with February, and the average per successful well was lower, 56½ barrels, against 59½ barrels for February. The report of field conditions in California at the close of March bears evidence of the boom the industry has recently experienced there. At the time indicated 615 wells were in course of drilling, while the total of completions for the month did not exceed 58. The production shewed the expected increase, the daily average for March being 189,100 barrels, against 166,950 barrels for February. Stocks in storage at the end of March amounted to 16,636,000 barrels, representing a gain of 291,000 barrels over the February aggregate. The consumption has shewn steady expansion, and shipments are reported very close to the State's output.

Refined and Products. – An important price development has marked the local market for refined during the week, a decline of 15 points for all descriptions having been announced on Friday. Quotations are established at the following figures:—Bulk, 4·25 cents for standard white and 5·75 cents for water white; barrels, 7,75 cents for standard white and 9·25 cents for water white; cases, 10·15 cents for standard white and 11·65 for water white. New York and Philadelphia prices are on a parity. The reduction occasioned surprise in the local trade.

CLOSING QUOTATIONS.

Crude at the Wells.

The quotations for oil represented by credit balances were :—

	Week ended	
	April 9. 1909.	April 9. 1910.
Pennsylvania	$1·78	$1·35
North Lima	1·04	0·84
South Lima	0·99	0·79
Indiana	0·99	0·79
Illinois, heavy, below 30 deg.	0·60	0·52
Kansas and Indian Ter., 30 deg. and above	0·41	0·38
Heavy	0·28	0·30
Humble, Tex.	0·50	0·75
Saratoga	0·53	0·75
Sour Lake, Tex.	0·54	0·77
Jennings, La.	0·54	0·54
Canadian Oil :—		
Petrolia	1·44	1·24
Oil Springs, less pipeage	1·51	1·31

Refined—For Export.

In cents.		Week ended April 9. S.W. 110 test.	W.W. 150 test.
Barrels, cargo	per gal.	7·75	@ 9·25
Philadelphia		7·75	@ 9·25
Bulk, New York		4·25	@ 5·75
Bulk, Philadelphia		4·25	@ 5·75
Cases, New York		10·15	@10·65
Cases Philadelphia		10·15	@10·65

Refined in Cases—110 Fire Test.

	Week ended	
	April 2. 1910.	April 9. 1910.
3,000 to 10,000	10·45	10·30
1,000 to 3,000	10·50	10·35

Refined—Jobbing Lots.

In barrels, pkgs. included.

	Week ended	
	April 2.	April 9.
130 fire test, S.W.	11¼	11¼
150 fire test, W.W.	11¾	11¾
In bulk from tanks	8½	8½

Naphtha and Gasolene.

	Week ended	
	April 2.	April 9.
Naphtha, V. M. and P. deod.	12	12
Gasolene, 86 deg.	22¾	22¾

Pennsylvanian Oil Runs from March 31st to April 6th, were :—March 31st, 282,788*; April 1st and 2nd, 158,293*; April 3rd, 213,564*; April 4th, 79.564; April 5th, 205,366*; April 6th, 277,524*.

The Deliveries of Pennsylvanian Oil from April 1st to April 7th were:—April 1st, 190,009; April 2nd and 3rd, 373,857; April 4th, 390,905*; April 5th, 217,260; April 6th, 289,205*; and April 7th, 268,731*. * Includes Illinois Oil.

Clearances for the Week.

During the week ended April 8th and since Jan. 1, the clearances of petroleum, in gallons, from the port of New York, were as follows:—

	Week.	Year.	1909.
Refined	11,023,700	146,207,010	147,205,440
Crude	53,150	3,405,750	10,119,475
Naphtha	495,620	17,469,370	7,307,130
Residuum	54,750	1,619,750	108,220

Export Statistics.

The total exports from the port of New York and from the United States have been :—

	Gallons.
From New York, week ended April 8th	14,751,417
Total from New York, from Jan. 1st, 1910	198,448,430
Same period last year	206,394,395
Decrease	7,945,965
From United States, week ended April 8th	32,360 977
Total from United States, since Jan. 1st, 1910	291,605,488
Same period last year	360,640,302
Decrease	61,034,814

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The "Review" Shipping List.

April 22, 1910.

(The following abbreviations are used in this table:—L. Left; P. Passed; Arr. Arrived; Sp. Spoken; Tr. Trading.)
Anglo-American Co.'s vessels marked thus (□): the Anglo-Saxon Co.'s tankers thus (*): and Messrs. Lane and Macandrew's thus (†).

Vessel.	From.	For.	Latest Date and Position
ALCHYMIST	Algiers	Selzaete	At Southampton, April 19
ALICE ET ISABELLE (Fr. bq.)	New York	Rouen	In Port, April 18, laid up
AMERICAN	New York	Antwerp	L. April 12
APPALACHEE □	Belfast	Philadelphia	Arr. April 14
APSCHERON	Ibrail	Genoa	P. Sulina, April 17
ARAL	Tyne	New York	P. Dunnet Head, April 10
ARAS	Belfast	Philadelphia	P. Irishtrahull, April 12
ASHTABULA □	San Francisco	Itosaki	Arr. Mar. 27
ASTRAKHAN	Tyne	Philadelphia	Arr. April 14
AUGUSTA	Brunsbuttel	Hamburg	In Port, April 19
AUREOLE	Port Arthur (Texas)	Manchester	Sd. Norfolk (Va.), April 11
AZOV	Tyne	Callao	Arr. Mar. 29
BAKU STANDARD	Cardiff	Tyne	In Port, April 9
BALAKANI†	Newport Nws.	London	L. April 19
BATOUM	Tyne	Port Arthur (Texas)	Arr. April 17
BAYONNE	Leghorn	Savona	L. April 16
BEACON LIGHT	Penarth	Philadelphia	L. April 20
BLOOMFIELD	Emden & Manchester	Galveston	P. Sand Key, April 11
BORJOM	—	—	Tr. b'tw'n Black Sea & Levant
BRILLIANT	Philadelphia	Copenhagen	P. Del. Break., April 6
BRILLIANT (Br. bq.)	Bombay	Baltimore & Philadelphia	L. Jan. 5
BRITISH SUN	Sheerness	Tyne	Arr. Mar. 3, in Port, Mar. 29
BROADMAYNE	Tonsberg	Tyne	In Port, April 19
BUFFALO	New York	Rotterdam	L. April 11
BULLMOUTH*	Kurrachee	Soesoe	Arr. April 17
BULYSSES*	Samboe	Woosung	Sd. Singapore, April 10
BURGERMEISTER PETERSEN	Oporto	Philadelphia	Arr. April 19
BUYO MARU	Noumea	Yokohama	Arr. Mar. 14
CADILLAC	Bengkalis	Rotterdam	Arr. April 14, in Port, April 19
CALCUTTA (B. b.) □	San Francisco	Yokohama	L. Mar. 17
CAMILLO (Late "Joyo Maru")	Port Arthur (Texas)	London	Cd. St. Michael's, April 16
CAPTAIN A. F. LUCAS	Tampa	New York	Arr. Mar. 26, in Port, April 2
CARDIUM*	Bombay	Aroe Bay	L. April 14
CARPATHIAN†	Port Arthur (Texas)	Avonmouth	L. April 19
CAUCASIAN†	Kustendje	Hamburg	P. Pera, April 15
CHARLOIS	Hamburg & Tyne	New York	P. Lizard, April 7
CHESAPEAKE □	Batavia	New York	At Port Natal about April 1
CHESTER	Antwerp	Kustendje	L. April 16
CHEYENNE	Savona	New York	Arr. April 16
CITY OF EVERETT	Boston	New York	Arr. April 2, in Port, April 9
CIUDAD DE REUS	Batoum	Rouen	L. April 15
CLAM*	Balekpappan	Tarasan	L. April 12
CLEARFIELD	Rouen	Tyne	In Port, April 19
CONCH*	New York	India (via Port Natal)	P. Cape Point, about April 19
CONRAD MOHR	Philadelphia	Bergen	L. about April 13
COWRIE*	Palembang	Samboe	Arr. April 14
CUYAHOGA □	Bengkalis	U.K.	Sd. Sabang, April 15
CYMBELINE	Campana & Sand Key	New York	Arr. Mar. 29, in Port, April 9
CZAR NICOLAI II.	Hamburg	Batoum	Sd. Cuxhaven, April 18
DAGHESTAN	Batoum	Thameshaven	P. Constant'ple, April 17
DAKOTAH □	Moji	San Francisco	Arr. April 17
DANUBIAN†	Newport Nws	Amsterdam	L. April 13
DELAWARE □	New York	Liverpool	In Port, April 20
DERBENT	Manchester	Batoum	P. Gibraltar, April 15
DEUTSCHLAND	New York	Rotterdam	Arr. April 19
DIAMANT	New York	Hamburg	L. April 10
EDWARD DAWSON	Hull	Cuba	P. Prawle Pt., April 10
EL LOBO	Payta	San Francisco	Arr. April 20
ELAX*	Balekpappan	Hankow	L. April 10
ELISE MARIE	Gothenburg & Tyne	Philadelphia	P. Dunnet Head, April 8
ENERGIE	Philadelphia	Bremerhaven	L. April 15
ERIVAN	Dunkirk	Tyne	Arr. April 20
EUPLECTELA*	Shanghai	Balekpappan	L. April 9
EXCELSIOR	Alexandria	New York	L. April 13
FRANCE MARIE (French bq.)	Santander	Marseilles	In Port, April 10
GEESTEMUNDE	Danzig	Philadelphia	P. Dunnet Head, April 13
GENESSE □	New York	Tampico	L. April 10
GEORGIAN PRINCE	Vallo	Tyne	In Port, April 19
GOLDMOUTH*	Tyne	—	P. Beachy Head, April 17
GUTHEIL	New Orleans	Matanzas	Sd. Port Eads, April 10
H. C. HENRY	Tees	Seattle	Sd. Monte Video, Mar. 13
HAINAUT (Du. sh.)	New York	Antwerp	Arr. April 11, in Port, April 19
HARRY WADSWORTH	Hull	New Orleans	Sd. Portland, April 5
HELIOS	Hamburg	Philadelphia	Arr. April 20
HERMIONE	Oran	Sabang	Sd. Suez, April 15
HESPERUS	New York	Hamburg	L. April 14
HOTHAM NEWTON	Hull	Batoum	Off Ushant, April 19
HYRCANIA	Batoum	London	In Port, April 20
IOANNIS COUTZIS	Cardiff	Batoum	Cld. Constant'ple, April 14
IROQUOIS □ (towing barge Navahoe)	London	New York	Arr. April 19
J. A. CHANSLOR	Newport Nws.	San Francisco	Sp. Mar. 28, 1,328 miles S.E. of Sandy Hook
J. B. AUG. KESSLER	Novorossisk	Rotterdam	In Port, April 19
JAMES BRAND	Portland (Dorset)	Tyne	In Port, April 19
JULES HENRI (French bq.)	Marseilles	New York	Sp. April 6, off Tarragona
KIYO MARU	Kobe	Salina Cruz	Sd. Honolulu, Mar. 31
KURA	Philadelphia	Dublin	P. O. Hd. Kinsale, April 19
LA CAMPINE	Tyne	Philadelphia	Arr. April 20
LA FLANDRE	Ghent	Antwerp	Arr. April 6, in Port, April 19
LA HESBAYE	Antwerp	Baltimore	P. Scilly, April 11
LACKAWANNA □	Manchester	Philadelphia	P. Fastnet, April 13
LE COQ†	Kustendje	Bordeaux	P. Pera, April 14
LOUTSCH	Alexandria	Odessa	Arr. April 4
LUCERNA	Tyne	Mozambique	P. Gibraltar, April 17/18
LUCIGEN	Trial Trip	Tyne	In Port, April 19, laid up
LUCILINE†	Kustendje	Cette	L. April 12
LUMEN	Ibrail & La Pallice	Rouen	Sd. La Pallice, April 18
LUTETIAN†	Tyne	Novorossisk	Arr. April 15
LUX†	Tyne	New York	P. Dunnet Head, April 10
MANHATTAN	New York	Batoum	Cld. Constant'ple, April 11
MANNHEIM	Philadelphia	Hamburg	L. April 13
MARGARETHA	New York	St. Louis (Rhn)	L. April 7
METEOR	Vladivostock	U.K. or Cont.	P. Gibraltar, April 20
MEXICAN PRINCE	Tyne	Havana	P. Dover, April 13
MINA BREA	Caleta Buena	Callao	In Port, Mar. 29
MINHLA	Rangoon	Chittagong & Akyab	L. April 5
MIRA	Calais	Blyth	In Port, April 19, laid up
MUREX*	Balekpappan	Hong Kong	Arr. April 16

Vessel.	From.	For.	Latest Date and Position.
NARRAGANSETT	New York	London	In Wireless Com with Mauretania, April 4
NEW YORK□	New York	Rotterdam	Arr. April 19
NIAGARA	Hamburg	New York	P. Eastbourne, April 19
OBERON	Panama	P. San Luis	L. April 5
OCEAN	Philadelphia	Antwerp	L. April 6
OILFIELD	Rouen	Tyne	In Port, April 19
ORIFLAMME†	Havre	Tyne	Arr in Tyne for repairs, Mar. 2
OTTAWA□	Liverpool	New York	Arr. April 5, in Port, April 9
OURAL	Batoum	Antwerp	P. Sagres, April 18
PATELLA*	San Francisco	Hong Kong & Saigon	L April 4
PAUL PAIX	Hull	New York	P. Lizard, April 14
PAULA	Philadelphia	Swinemunde	L. April 14
PECTAN	Tocopilla	San Francisco	Arr. April 20
PENNOIL	Rotterdam	Philadelphia	Arr. April 16
PETROLEINE	Rouen	Blyth	Arr. April 15, in Port, April 19
PHOEBUS	New York	Hamburg	In Port, April 19
PINNA†	London	Hamburg	Arr. April 17
POTOMAC□	Manchester	Philadelphia	Arr. April 20
PROGRESSO ARGENTINA (Ar. bq.)	Port Arthur (Texas)	Buenos Ayres	Arr. Dec. 10
PROMETHEUS	New York	Rotterdam	Arr. April 14, in Port, April 19
PRUDENTIA	London	Tees	Arr. April 3, in Port, April 18
PURELIGHT	Philadelphia	Hamburg	Arr. April 18, in Port, April 19
QUEVILLY (Fr. bq.)	Rouen	Havre	In Port, April 16
RENDOVA (Br. bq.)	At Sydney	Port Sunlight	About Mar. 16
RION	Port Arthur (Texas)	Foynes	P. Cappa, April 20
ROCK LIGHT†	Newport N'ws	Middlesbro'	P. Lizard, April 19
ROMANY*	Samboe	Barrow	P. Perim, April 18
ROTTERDAM	Amsterdam	New York	Arr. April 12
ROUMANIAN†	Newport Nws.	London	P. Dover, April ?
RUSSIAN PRINCE	Cienfuegos	U.K	L. April 7
SALAHADJI*	Singapore	Balekpappan	L. April 16
SAN ANTONIO	London & Southampton	Puerto Mexico	P. Sand Key, April 17
SAN IGNACIO DE LOYOLA (Sp. bq.)	New York	Pasages	Sp. April 6, 42 N., 10 W.
SANTA RITA	—	San Francisco	Arr. abt. Mar. 21
SARANAC□	Philadelphia	Calcutta	Sd. Port Natal, April 17
SAXOLEINE	Rouen	Tyne	Arr. April 15, in Port, April 19
SEMINOLE□	Kuchinotzu	Karatzu	Arr. April 16
SERVIAN†	Belfast	Manchester	L. April 21
SIRIUS (Ger.)	New York	Hamburg	Arr. April 15, in Port, April 19
SNOWFLAKE	Sulina	Rouen	P. Constant'ple, April 18
SOYO MARU	Lobitos	Yokohama	Arr. Feb. 6
SPONDILUS*	Tyne	Singapore	At Port
STANDARD	New York	Hamburg	In Port, April 19
STROMBUS*	Aroe Bay	Samboe	Arr. April 15
SULTAN VAN LANGKAT*	Samboe	Hong Kong	L. April 15
SUNLIGHT (Br. bq.)	Macoris	Boston	L. April 4
SURAM	Blyth	Batoum	Off the Wight, April 17
SUWANEE□	New York	Vera Cruz	Sl. Galveston, Mar. 28
SVIET	Marseilles	Novorossisk	Cld. Constant'ple, Mar. 30
TAMARAC□	London	New York	In Wireless Com., April 18, 7.45 a.m.
TELENA*	Alexandria	Tyne	In Port, April 19
TEREK†	London	Kustendje	P. Dover, April 14
TIFLIS	Batoum	Hamburg	Arr. April 15, in Port, April 19
TIOGA□	Kustendje	Liverpool	In Port, April 20
TONAWANDA□	London	Jacksonville	P. Southend, April 20
TRINCULO	San Francisco	Tocopilla	At Port San Luis, Mar. 18
TROCAS*	Shanghai	Bremerhaven & Hamburg	P. Gibraltar, April 19/20
TUSCARORA	Singapore	Karatzu	L. April 11
VEDRA	Batoum	Antwerp	Cld. Constant'ple, April 13
VILLE DE DIEPPE (Nor. bq.)	Rouen	Liverpool	In Port, April 20
VOLUTE*	Sydney	Balekpappan	L. April 15
WASHINGTON	Baltimore	Port Said	Arr. April 10/11
WEEHAWKEN	Kustendje	London	L. April 14
WILLKOMMEN	Philadelphia	Swinemunde	P. Del. Break., April 8
WINNEBAGO	Calcutta	San Francisco	L. April 16

Latest Market Intelligence.

LONDON OIL MARKET.

Supplied by Messrs. Benjamin & Gee, 31, St. Mary Axe, E.C.

April 22nd, 1910.

Refined Petroleum is unaltered in price, prices remaining as follows:—Russian, 5¾d.; Roumanian, 7d.; American, 6d.-6¼d.; Water White, 7d.-7¼d.

LUBRICATING OILS

There are no alterations to report, current prices being :—

American pale, £6 10s. to £9 10s.
American dark cylinder, from £7 12s. 6d.
American filtered cylinder, from £10 12s. 6d.
No. 1 Russian, for Spot, £8.

TURPENTINE.

American Turpentine is very firm, attention having been drawn to the small stocks held on this side, has brought buyers into the market. The latest quotations are for Spot 43s. 6d., June 42s. 6d., July-December 39s. 3d.

LIVERPOOL OIL MARKET.

April 21st.

Refined oils are quiet, and sellers quote 6d., for Russian, Galician or Roumanian; and 6½d. to 7d. per gallon for American.

LATEST AMERICAN PRICES.

New York, April 21st.

Refined, in cases, is steady at 10·30; Standard White, 7·90; Credit balances, 1·40.

Philadelphia, April 21st.

Standard White is now quoted at 7·90.

GERMANY.

Hamburg, April 20th.

The petroleum market is without any change. American, ·800–6·30 marks; Pennsylvanian, 6·40 marks; Galician, 6·30 marks. Russian and Roumanian not on the market.

RUSSIA.

Baku, April 18th.

The market is somewhat lower. Crude oil is quoted at 14¾-15 copecs per pood spot. Mazout 15-15¼ copecs.

BELGIUM.

Antwerp, April 20th.

The petroleum market is without change. Price of Standard White, spot, 20·50 francs per 100 kilos.

ROUMANIA.

April 18th.

	Francs.
Crude oil from different fields, including pipe line charges, per 100 kgs.	3·50–3·60
Refined oil, exclusive of taxes, ex. refinery	8·10
Residuals in tank waggons, at refinery	3·50–3·60
Paraffin	110–120
Prices for Export.	
Refined oil, f.o.b., per 100 kgs.	6·00
Benzine, sp. gr. 0·710–0·715, f.o.b.	16–17
„ sp. gr. 0·715–0·720 „	14·50–15·50
„ sp. gr. 0·730–0·740 „	10–11
„ sp. gr. 0·745–0.755 „	9–10
Lubricating, horticultural	33
„ prime	36
„ extra	42
„ Royal, "Steaua Romana"	45
Imperial "Aurora"	46
Vacuum-Ideal "Vega"	52

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IMPORTS of PETROLEUM into UNITED KINGDOM

Specially prepared for this Journal by the Custom House.

FOR THE WEEK ENDED APRIL 11TH, 1910—

Date.	Port and Importers.	Description.	No. of Gals.	Port Whence.
April	LONDON—			
5	Fielder, Hickman and Co.	Lub.	8,800	New York
5	Grindley and Co.	,,	6,000	,,
5	Anglo-American Oil Co.	,,	20,000	,,
5	,, (Iroquois)	Fuel	21,900	,,
5	M. Record	Lub.	4,000	Trieste
6	H. Finkler and Co.	L. Resid.	4,000	,,
6	Snowden, Sons and Co., Ltd.	Lub.	1,230	Hamburg
6	Mercantile Lighterage Co.	,,	15,100	New York
6	A. Vaughan	,,	70	Bremen
6	Schlieman's Oil Co.	Lub. Oil and Gr.	3,900	Hamburg
7/3	H. Johnston aud Sons	Lub.	1,000	,,
7	Houlder, Bros. and Co.	,,	240	New York
7	Page, Son and East	Lub. Oil and Gr.	840	Antwerp
7	Lubricating & Fuel Oils, Ld.	Lub.	4,100	Philadel.
8	C. Jameson	,,	2,680	,,
8	,,	,,	2,000	,,
8	A. Brown and Co.	,,	4,800	,,
8	Wilkins, Campbell and Co	,,	1,280	,,
8	Thames Tug & Lighterage Co.	,,	11,200	,,
8	British Pet. Co. (Terek)	Lamp	1,463,000	Kustendje
8	Produce Brokers' Co.	Lub.	2,000	Hamburg
9	Union Lighterage Co.	,,	30,240	Philadel.
9	M Record	,,	4,800	,,
9	British and Foreign Wharf	,,	70	Antwerp
9	Asiatic Petroleum Co.	Illum.	80	Rotterdam
9	Argo Steamship Co.	Lub.	30	Bremen
11	Page, Son and East	Lub. Oil and Gr.	560	Antwerp
11	Port of London Authority	Lub.	3,900	Hamburg
11	,,	,,	240	Antwerp
11	J. Harrison	Lub Gr.	760	,,
11	A. Vaughan	Lub.	140	Hamburg
11	Anglo-American Oil Co.	Gas	1,147,330	Philadel.
11	,, ,,	Fuel	466,960	,,
11	Bowring Petroleum Co.	Lub.	11,110	,,
11	T. H. Lee	Lub. Oil and Gr.	1,190	Hamburg
11	Argo Steamship Co.	Lub.	40	Bremen
	LIVERPOOL—			
5	Burnaby and Chantrell	Lub. Gr.	60	Antwerp
5	G. B. Taylor	Lub.	18,000	New York
6	Liverpool Warehousing Co.	Lub. Gr.	240	Hamburg
6	J. Light and Son	Lub.	2,000	New York
6	Meade-King, Robinson & Co.	Lub. Gr.	2,600	Philadel.
6	Worthington and Boler	Lub.	1,400	,,
7	C. C. Wakefield and Co.	Lub. Gr.	510	Antwerp
7	Stockdale and Doel	Lub.	6,840	Boston
7	W. B. Dick and Co.	,,	10,460	New York
7	,,	,,	21,140	Philadel.
7	E. Harrison and Co.	,,	9,680	,,
7	Meade-King, Robinson & Co.	,,	9,640	,,
7	G. B. Taylor	,,	68,560	New York
7	Meade-King, Robinson & Co.	,,	2,600	Baltimore
8	Meade-King, Robinson & Co.	Lub.	5,440	Baltimore
8	Price's Patent Candle Co.	,,	2,050	New York
8	Huxley and Co.	,,	2,730	Philadel.
8	G. B. Taylor	,,	5,200	,,
8	American Line	,,	3,000	,,
8	Crew, Levick and Co.	,,	1,000	,,
9	Fellows, Morton and Clayton	,,	830	,,
9	J. Light and Son	Lub. Gr.	400	New York
9	A. Hopps and Sons	M. Colza	2,840	Baltimore
11	Burnaby and Chantrell	Lub. Gr.	780	Hamburg
11	Pickfords, Ltd.	Lub. Oil and Paste	140	,,
11	Vacuum Oil Co.	L. Resid.	659,560	Constantza
	BARROW—			
6	Anglo-American Oil Co. (Tonawanda)	Lamp	655,630	Philadel.
6	,, ,,	Spirit	567,110	,,
	BRISTOL—			
6	Pickfords, Ltd.	Lub. Oil and Gr.	950	Hamburg
6	,,	Lub. Oil and Gr.	450	,,
9	J. and R. Bush	Lub.	26,880	New York
9	H. R. James and Co.	,,	1,000	,,
11	Ford and Canning	Lub. Gr.	450	,,
11	,,	Lub.	6,750	,,
11	C. Hill and Sons	L. Resid.	10,400	,,
11	,,	Lub.	27,560	,,
	GLOUCESTER—			
9	Bristol S. Navigation Co.	,,	120	Hamburg
	GRIMSBY—			
7	J. Sutcliffe and Sons	,,	240	Antwerp
	HARWICH—			
7	Great Eastern Railway	,,	200	,,
7	,,	Lub. Gr.	320	,,
	HULL—			
5	Wilsons and N.E. Co.	Lub.	1,200	Hamburg
6	,,	,,	10,400	,,
6	,,	,,	1,440	Antwerp
6	T. Wilson, Sons and Co.	,,	80	Christiania
6	W. Gilyott and Co.	,,	48,160	New York
7	Wilsons and N.E. Co.	,,	1,120	Antwerp
8	T. Wilson, Sons and Co.	,,	2,720	Stettin
	MANCHESTER—			
5	British Pet. Co. (Aras)	Lamp	839,000	Kustendje
5	,, ,,	Fuel Res.	130	,,
5	,, ,,	Lamp	80	,,
5	D. Currie and Co.	Lub. Gr.	720	Hamburg
5	Meade-King, Robinson & Co. (Derbent)	Lub.	282,500	Batoum
5	,,	,,	5,000	,,
5	Bramwell, Fern and Co.	,,	5,000	,,
5	,, (Derbent)	,,	282,500	,,
6	Anglo-American Oil Co. (Lackawanna)	Lub.	1,235,410	Philadel.
7	D. Currie and Co.	Lub. Gr.	1,200	Hamburg

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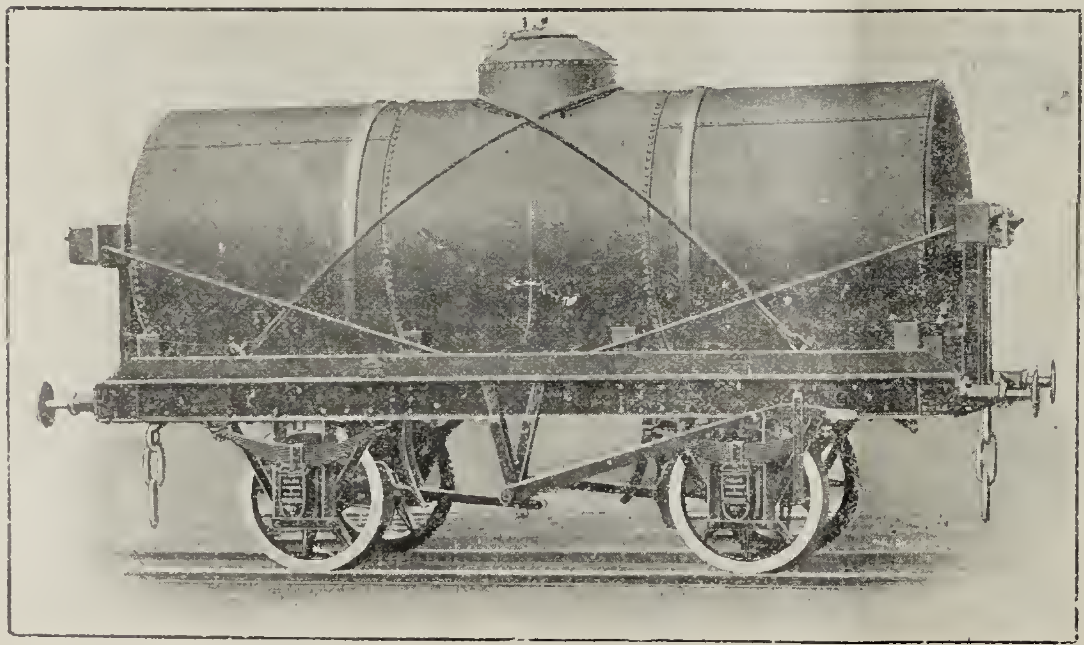

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IMPORTS.—(*Concluded*).

Date. April.	Port and Importers	Description.	No. of Galls.	Port Whence.
	Manchester—			
7	J. T. Fletcher and Co.	Lub.	240	Antwerp
8	Manchester Liners, Ltd.	,,	2,600	Philadel.
8	Schofield and Co.	,,	3,090	,,
8	Anglo-American Oil Co. (Potamac)	Lamp	1,270,610	New York
9	W. Hodgson and Co.	Lub.	2,760	,,
9	Liverpool Storage Co.	,,	18,660	,,
9	G. B. Taylor	,,	65,200	,,
11	Crew, Levick and Co.	,,	4,820	Philadel.
11	,,	M. Colza	1,240	,,
11	Meade-King, Robinson & Co.	,,	10,400	,,
11	,,	Lub.	11,080	,,
11	Diamond Lubricating Co.	,,	2,500	,,
11	British Pet. Co. (Rccklight)	Fuel	933,000	Pt. Arthur
	Newcastle—			
7	Tyne Tees Steamship Co.	Lub.	2,160	Hamburg
18/3	,,	Lamp	4,000	,,
	Aberdeen—			
5	W. Graham-Yooll and Co.	,,	2,050	,,
	Dundee—			
5	D. Alexander and Sons	Lub. Oil and Gr.	70	,,
	Glasgow—			
7	Clyde Shipping Co.	Lub. Gr.	240	Antwerp
7	Anchor Line	Lub.	60,560	New York
11	,,	,,	20,630	,,
	Grangemouth—			
7	J. Currie and Co.	Lub. Oil and Paste	2,060	Hamburg
7	W. G. Yooll and Co.	Lamp	4,000	,,
	Leith—			
5	J. Currie and Co.	Lub.	360	Bremen
5	,,	,,	160	Hamburg
5	G. Gibson and Co.	,,	200	Antwerp
7	W. G. Yooll and Co.	Lamp	2,180	Hamburg
7	J. Currie and Co.	Lub.	2,000	,,
11	,,	,,	300	,,
11	,,	,,	360	,,
11	G. Gibson and Co.	,,	70	Antwerp
	Belfast—			
7	British Pet. Co. (Aras)	Lamp	440,000	Kustendje
			10,965,610	
	Add to correct—			
	London—			
9	Asiatic Petroleum Co.	Benzine	5,000	Rotterdam
	Total for the Week		10,970,610	

FOR THE WEEK ENDED 18th APRIL, 1910—

Date.	Port and Importers.	Description.	No. of Galls.	Port Whence.
April	London—			
12	Union Lighterage Co.	Lub.	2,880	Antwerp
12	Mordaunt Bros	,,	2,750	Philadel.
13	Anglo-American Oil Co.	,,	4,800	,,
14	British and Foreign Wharf	,,	240	Antwerp
14	Page, Son and East	Lub. Oil and Gr.	240	,,
14	A. Brown and Co.	Lub.	2,000	Hamburg
14	W. F. Watt	,,	7,200	,,
14	Argo Steamship Co.	,,	300	Bremen
14	W. H. Muller and Co.	Lub. Gr.	160	Rotterdam
15	J. Harrison, Ltd.	Lub.	630	Antwerp
15	H. P. Wheatley and Co. (Theodor)	Lamp	39,500	Hamburg
16	Asiatic Pet. Co. (Camillo)	Benzine	1,906,500	Pt. Arthur
18	Page, Son and East	Lub. Oil and Gr.	120	Antwerp
18	British and Foreign Wharf	Lub	1.010	,,
	Liverpool—			
12	Ismay, Imrie and Co.	,,	2,000	New York
12	Wackerbarth, Holt and Co.	,,	4,160	Baltimore
12	George B. Taylor	,,	32,640	New York
12	Anglo-American Oil Co.	Gas Res.	290	Kustendje
12	Huxley and Co.	Lub.	1,020	Hamburg
12	Fellowes, Morton & Clayton	Lub. Gr.	2,440	New York
12	F. Cheesman and Co.	Lub.	2,000	,,
12	Vacuum Oil Co.	,,	9,600	,,
12	Liverpool Storage Co.	,,	1,200	,,
13	Burnaby and Chantrell	Lub. Gr.	1,230	,,
13	J. Light and Son	Lub.	2,000	,,
13	J. T. Fletcher and Co.	Lub. Oil and Gr.	310	Antwerp
13	Crew, Levick and Co.	Lub.	50	Philadel.
13	Meade-King, Robinson & Co.	,,	6,280	Hamburg
13	D. Owen and Sons	,,	990	,,
13	A. Hopps and Sons	L. Resid.	4,360	N. Orleans
13	Bramwell, Fern and Co.	Lub.	40	New York
15	J. Light and Son	,,	400	Riga
14	Meade-King, Robinson & Co.	Benzine	50,000	Rotterdam
18	D. Owen and Son	Lub.	1,930	Stettin
12/3	Anglo-American Oil Co. (Ottawa)	Gas	2,590	New York
	Cardiff—			
15	Bristol Steam Nav. Co.	Lub. Oil and Gr.	400	Antwerp
	Dover—			
9	S. Eastern and Chatham Ry.	Lub.	100	Calais
14	,,	,,	50	,,
15	,,	,,	60	,,
	Grimsby—			
8	J. Sutcliffe and Son	,,	640	Antwerp
12	,,	,,	1,020	,,
12	T. Wilson Sons and Co.	,,	3,800	New York
12	Wilsons and N.E. Co.	,,	280	Hamburg
18	,,	,,	560	Antwerp
18	T. Wilson Sons and Co.	,,	12,080	New York
	Manchester—			
12	G. B. Taylor	,,	105,680	Philadel.
13	J. T. Fletcher and Co.	,,	240	Antwerp
	Newcastle—			
12	Tyne Tees SS. Co.	,,	2,080	,,
	North Shields—			
13	B. Craig and Co	,,	200	Gothenburg
	Swansea—			
15	Bristol Steam Nav. Co.	Lub. Gr.	240	Antwerp
	Aberdeen—			
15	R. C. Reid and Co.	Lub.	600	Hamburg
	Dundee—			
15	A. Gray	Lamp	390	,,
	Glasgow—			
18	Anchor Line	Lub.	35,680	New York
18	Allan Bros. and Co.	,,	57,800	,,
	Grangemouth—			
14	W. Graham-Yooll and Co.	Lamp	6,000	Hamburg
	Leith—			
14	W. Graham-Yooll and Co.	,,	2,180	,,
14	J. Currie and Co.	Lub.	3,080	,,
14	Henderson and McIntosh	,,	23,380	Philadel.
16	J. Currie and Co.	,,	330	Hamburg
18	G. Gibson and Co.	,,	120	Antwerp
	Belfast—			
13	J. C. Pinkerton and Co.	Lub. Gr.	180	Hamburg
13	,,	Lub.	90	Antwerp
16	British Pet. Co. (Servian)	Lamp	560,000	Pt. Arthur
	Limerick—			
16	British Pet. Co. (Rion)	,,	808,000	Batoum
	Dublin—			
16	Palgrave, Murphy and Co. (Kura)	,,	893,870	Philadel.
			4,612,990	
	Deduct to correct—			
	Liverpool—			
23/3	Anglo-American Oil Co. (Delaware)	Lamp	25,540	New York
	Barrow—			
22/3	Anglo-American Oil Co. (Appalachee)	,,	3,260	New York
	Total for the Week		4,584,190	
	Total for the Fortnight		15,554,800	

◆

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The Petroleum Review.

By PAUL DVORKOVITZ.

Vol. XXII. *(New Series.)* May 7th, 1910. No. 476

THE PETROLEUM REVIEW:

The ANNUAL SUBSCRIPTION for both English and Foreign readers is 26s., including Postage. Single Copies may be had at the offices at 1s.

The Editor would esteem it a favour if readers, when communicating with the various firms advertising in our pages, would mention the "Review."

Contributions upon items of interest are always welcomed from subscribers, but in each case these should be accompanied with the name and address of the sender, not necessarily for publication.

Editorial Notes.

Important Articles on the Grosny Oil Fields.

Elsewhere in this issue we refer to Mr. Streezhoff, one of the pioneers of the Grosny petroleum industry, and also present a photograph of this gentleman, taken exclusively for the Review a few days ago. Mr. Streezhoff has done us the honour of writing a series of special articles upon the Grosny fields, during his stay in London, and the introductory article is given in this issue. We have no desire to dwell upon the great value of this series from a practical point of view, for it goes without saying that seeing that Mr. Streezhoff's name is associated with them, they will be of intense interest to all students of the petroleum industry. The article which will appear in our next issue will especially deal with the white oil of the Grosny district, and thus for the first time our readers will have an opportunity of closely studying this strange phenomena.

A Most Successful Company.

The California Oilfields, Ltd., a concern which has been operating for several years in the prolific oil producing territories of California, continues its successful career, and at this week's meeting of shareholders, the directors found themselves in the position of recommending a dividend of 35 per cent. as the result of the past year's trading. It is exceedingly gratifying when one finds a company which year in and year out finds its operations eminently successful, for without doubt luck finds but a small place in the history of successful enterprises. A well-planned policy, combined with careful attention to business, forms the main platform upon which success is achieved in oil producing companies to-day, and from what we know of the California Oilfields, Ltd., these essential factors to success have all along been theirs. We must admit we were rather surprised that at this week's meeting there seemed to be an idea on the part of some of the shareholders that the board of directors should take them more into their confidence, and furnish them with information which at present has been recognised as board secrets. Our opinion is that when a company finds its operations so financially successful as those of the California Oilfields, Ltd., have been and still are, the shareholders should rest quite contented, knowing, as they must do, that their confidence in the board of directors is not misplaced. Personally, we wish the company the same success in the future as that which has marked its operations for several years past.

The Process of Dragging from the Mire.

There is every possibility that at last the Russian Petroleum and Liquid Fuel Co., Ltd., will be lifted from the mire which has for such a long time dragged it down. At the beginning of the present week the company's secretary issued a circular to the shareholders, intimating that not only was the company henceforth to be free from its numerous embarassments in Russia, but that with the exception of Mr. Emil Luden, the whole of the directorate had resigned. This piece of information will, we are sure be received with feelings of pleasure by the shareholders who must have seen long ago that the board not only seemed antagonistic to the best interests of the company, but continued to blunder along in spite of repeated warnings from experienced oil men. Of great interest also will be the announcement that Mr. Herbert Allen and Mr. Richard Barnett have agreed to join the board. We can only trust that that yeoman service rendered to the sister company by Mr. Allen will be repeated in this case, and if this be so, then the Russian Petroleum and Liquid Fuel Co. will again rise from its ashes to be the powerful and successful company it was before it fell into the hands of meddlers and muddlers.

The Standard Oil Company in Norway.

According to the *Hamburg Fremdenblatt*, the acquisition of the Vestlandske Petroleum Co. of Bergen by the Standard Oil Co. has now become an accomplished fact. The former company, which has a capital of 840,000 crowns, is a subsidiary of the Danish Petroleum Co., which has a contract with the Standard Oil Co. for the sole sale of petroleum in Scandinavia. A year ago the Danish company asked for the allocation of shares of 160,000 crowns in the Vestlandske Co., and for one of its managers to have a seat on the board, whilst in return the contract between the two was to be prolonged until 1918. Now the Standard Oil Co. has, we learn, insisted the raising of the capital of the Norwegian company by 700,000 crowns, in new shares, to be held by itself, thus obtaining, with the Danish company, a majority of the shares in the Vestlandske Co.

THE EUROPEAN PETROLEUM COMPANY, LIMITED.

A meeting of the debenture holders of the European Petroleum Co., Ltd., was held yesterday week at Winchester House, London, E.C., for the purpose of passing an extraordinary resolution assenting to certain proposed modifications of the rights of the debenture-holders against the company and its property, and for modifying the trust deed.

Sir H. Seymour King, M.P. (one of the trustees) presided, and called upon Mr. Pike Pease to explain the object of the meeting. Mr. Pike Pease said that four years ago, in April, 1906, the suspension of the sinking fund was agreed to until the present date, but within three months a very serious position arose at Baku, owing to a strike of an alarming character breaking out. This had caused a suspension of baling on their property, thereby causing a loss in the profits. It was in the interests of the company generally for the debenture-holders to grant an extended moratorium, for Russia was now in a considerably better state than it was a few years ago, and the working conditions were very much superior.

Owing to a quorum not being present, the resolution was not put to the meeting, and the proceedings were adjourned until yesterday.

LAUNCH OF ANOTHER OIL TANKER.

The Greenock and Grangemouth Dockyard Co., Ltd., launched from their Greenock yard, on Tuesday week, the steel screw oil tank steamer "Impoco," which they have built to the order of the Anglo-American Oil Co., Ltd., London.

The dimensions of the vessel are:—Length 260 feet, breadth 41 feet, depth 20 feet 6 inches moulded, carrying a deadweight of 1,850 tons on 16 feet draft.

The new steamer is capable of carrying all kinds of oil, from benzine down to the heaviest grade, and has in all ten oil-tight compartments for the carrying of the oil in bulk. She has been built to the highest class at Lloyds, though her scantlings are much in excess of those required by that society to enable her to withstand the stormy weather she will encounter in her trade. She is fitted with cellular double bottom under engines and boilers, which are placed aft. Pump room is fitted at fore end, and contains a powerful set of pumps, capable of pumping from either side of the ship and discharging ashore from either side. Accommodation for officers is fitted in bridge placed amidships and for engineers aft, and is of the most up-to-date character. The vessel is fitted throughout with electric light.

A special feature of the vessel is the American towing machinery, which is so arranged that oil barges can be towed either alongside or astern.

Machinery for the vessel will be supplied by Messrs. J. G. Kincaid and Co., Ltd., Greenock, consisting of engines having cylinders 19½, 32, and 53 by 36 inches stroke.

On leaving the ways the vessel was named by Mrs. Andrew McLean, wife of the manager of the shipping department of the Anglo-American Oil Co. During construction the vessel has been superintended by Mr. Graydon Hume (company's superintendent), assisted by Messrs. Wilkie and Barnet, resident inspectors.

PRODUCTION OF ROUMANIAN REFINERIES DURING FEBRUARY.

The production of the Roumanian refineries during February was as under (in tons):—

Benzine	18,690
Illuminating	19,724
Lubricating	1,435
Residuals	52,996

The quantities delivered for inner consumption were (in tons):—

Benzine	1,289
Illuminating	3,651
Lubricating	908
Residuals	27,353

During the month 8,550 tons of residuals were used as fuel in the refineries.

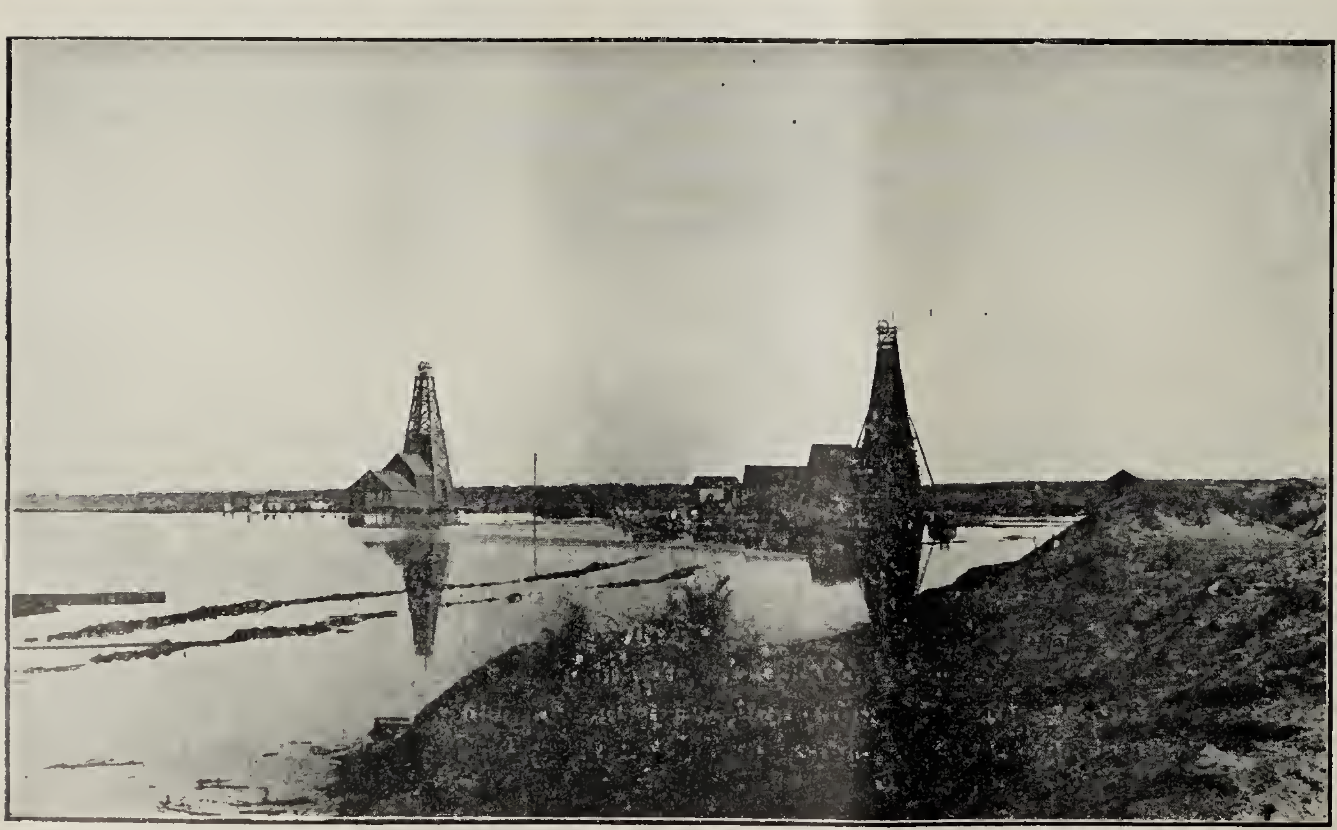
The stocks on hand at the end of the month were as under (in tons):—

Benzine	45,150
Illuminating	75,549
Lubricating	22,752
Residuals	166,403

MR. HERBERT ALLEN JOINS THE BOARD OF THE RUSSIAN PETROLEUM AND LIQUID FUEL CO., LTD.

We are officially informed that Mr. Herbert Allen has joined the board of the Russian Petroleum and Liquid Fuel Co., Ltd., and has been appointed chairman.

THE FAMOUS SPOUTER ON TCHELEKEN ISLAND.



The photograph here produced is of the famous spouter at Gadgenski, on the Island of Tcheleken, after the fountain had stopped flowing. The oil represents a lake, and is seen in the foreground.

A PIONEER IN THE GROSNY PETROLEUM INDUSTRY.

Mr. Streezhoff of the Tersky Association.

The subject of our sketch—Mr. J. Streezhoff—who is to-day so well known throughout the Russian petroleum industry, has been from childhood intimately associated with the mining industry of Russia, in fact, both his father and grandfather were connected with the mining industry in the Urals.

Mr. Streezhoff received his education principally at the University of Moscow, where he fell a willing "victim" to petroleum science, under the influence of Professor Markovnikoff. After graduating at the University of Moscow, and taking a scientific degree in connection with the science of petroleum, he went to the Caucasus, where he began to study the very practical side of the petroleum industry, being engaged in various boring operations, while afterwards he transferred his activity and knowledge to the fields of Grosny, having been associated with the development of these prolific regions for the past ten years, and to-day a recognised authority upon the petroleum industry there.

Mr. J. Streezhoff.

Mr. Streezhoff has done yeoman-work in connection with the Tersky section of the Imperial Russian Technical Society; this is seen from the fact that for five years he has occupied the presidential chair. This Society has always taken a very great interest in the growing petroleum industry, for there is scarcely any subject associated with the industry which has not been thoroughly discussed by one or other members. The association has recently celebrated its ten years' existence, and as shewing the progressive and successful lines upon which the association is conducted, it may be mentioned that its members to-day number 75.

Many members of the association are household names throughout the scientific world to-day. For instance, its members include Professor Knaritshkoff and Mining Engineer Konshin. The latter gentleman has been associated with the petroleum industry since the early eighties, and who along with Dr. Paul Dvorkovitz, was one of the first members of the Baku Association in 1884. He also occupies the position of President of the Naphtha Association of Grosny, a position which was given to him by those who were financially interested in the development of the oil field itself. Needless to say, this is the highest recognition which a technical man can wish for.

Mining Engineer Konshin, who is also a prominent member of the Association, has written numberless pamphlets and books upon the geology of petroleum, as well as having published exhaustive statistics connected respecting the oil fields of Russia. Mr. Konshin has now transferred his activity to the new Maikop field where he occupies the position of chief mining engineer, to the Government at Ekaterinodar, and, without doubt, his knowledge of the geology of petroleum will render the same great service to the proper development of the Maikop fields, as has been the case in Grosny.

It is in this important organisation that Mr. J. Streezhoff also occupies a prominent position, but the mention of the names of the gentlemen above recorded by no means exhaust the list of prominent workers in petroleum science who are counted among the members of the Tersky Association.

It may here be mentioned that Mr. Streezhoff is now on a visit to London.

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Petroleum at Uchta.—A wire received by the Perm administration and stock exchange from Engineer Gansberg at Yjma in Petchora announces the discovery of petroleum in large quantities.

CLASSIFIED IMPORTS INTO UNITED KINGDOM UP TO MAY 2nd, 1910.

IN GALLONS.

[All Rights Reserved.]

Country.	Illuminating.		Lubricating.		Residuals.		Gas Oil (Solar)		Benzine.		Fuel Oil.		Other Descriptions.		Totals.	
	Since April 18.	From Jan. 1.	Since April 18.	From Jan. 1.	Since April 18.	From Jan. 1.	Since April 18.	From Jan. 1.	Since April 18.	From Jan. 1.	Since April 18.	From Jan. 1.	Since April 18.	From Jan. 1.	Since April 18.	From Jan. 1.
Austria ...	—	—	—	49 900	—	—	—	—	—	—	—	—	—	—	—	49,900
Belgium ...	—	—	13,830	168,270	—	—	—	—	—	—	—	—	160	2,460	14,040	170,730
Canada ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dutch India	—	—	—	—	—	—	—	—	—	6,420,660	—	—	—	2,730	—	6,423,390
Germany ...	43 100	374,190	99,910	484,030	—	2,000	—	—	—	—	—	4,840	—	3,200	143,010	865,260
Holland ...	—	610	200	1,720	—	—	—	—	—	475,150	—	—	—	113.710	200	591,190
Roumania ..	—	5,430,400	—	659,560	—	134,750	—	290	—	950,400	—	130	—	—		7 175,530
Russia ...	—	4,560,630	624.760	3.132,880	1,920	117,120	—	—	—	700,820	—	—	—	240	626,680	8,511,690
U.S.A. ...	5,818,450	79,928,090	18,290	13,683,660	5,880	55,810	2,607,420	18,417,180	—	7,999,090	462,000	3,619,180	19,680	161,580	9.731,720	73,864,590
Other Countries	—	480,270	2.170	11,420	--	—	—	—	—	194,970	—	100	—	1,600	2,170	688,360
	5,861,550	40,774,190	1,559,210	18,191,440	7,800	309,680	2,607,420	18,417,470	—	16,741,090	462 000	3,624,250	19,840	285.520	10,517,820	98,343,640

THE PRODUCTION OF THE LEADING ROUMANIAN FIRMS DURING THE FIRST QUARTER 1910.

The following table shews the production of crude oil of the principal Roumanian firms during the first three months of this year, in comparison with the corresponding period of 1909:—

	1910. Tons.	1909. Tons.
Steaua Romana	104,073	87,431
Regatul Roman	77,149	38,450
Astra	26,329	14,625
Concordia	24,960	32,800
Romano-American	18,570	29,685
Orion	14,277	9,995
Campeanu	9,470	—
International	8,118	8,110
Trajan	7,628	9,576
Alpha	7,416	3,683
Colombia	6,549	9,044
Seceleanu Bros.	5.070	4,488
Nafta	4,425	5,142
Aquila Franco-Romana	4,337	5,235
Arnheemsche Petroleum Maats.	1,706	1,791
Anglo-Romana	1,577	2,123
Romano-Belgiana	1,496	336
Thumann	1,255	527
Italo-Romana	1,030	894

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ROUMANIAN EXPORTS DURING MARCH.

The total exports of petroleum and petroleum products from Roumania during March amounted to 36,151 tons, as against 2,5637 tons exported during the corresponding month of 1909. The following table shews the exports of various products (in tons):—

	March, 1910.	March, 1909.
Crude, Residals, etc.	5,834	584
Illuminating Oil	24,943	12,567
Benzine	5.357	12,464
Paraffin	16·5	22·7

The countries to which the petroleum products were exported were as under (in tons):—

England	12,962	Austria	2,466
France	8.262	Turkey	1,960
Egypt	5.630	Other Countries	1,447
Belgium	3,724		

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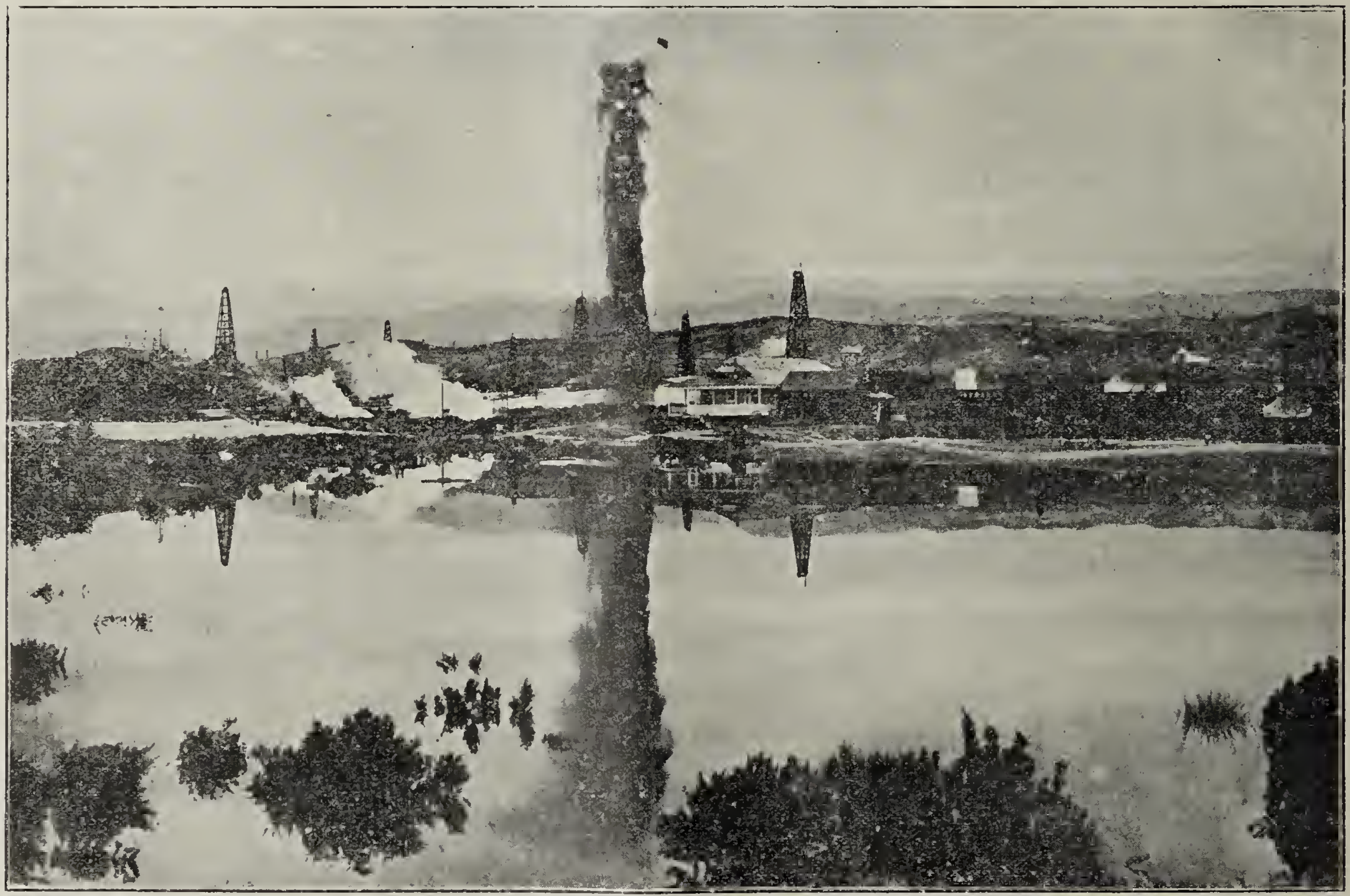
ROUMANIAN PRODUCTION DURING MARCH.

The Roumanian production of crude oil during March amounted to 111,456 tons, as against 109,193 tons produced in February. The production of various districts was as under (in tons):—

	March. 1910.	February. 1910.
Prahova District—		
Bustenari-Calinet-Burloi	28,167	26,207
Campina-Poiana	27,168	24,309
Moreni	38.369	37,428
Baicoi-Tintea	9,232	14,193
Other Fields	1,029	895
Total for Prahova District	103,965	103,032
,, Dambovitza District	2,513	2,560
,, Buzeu District	2,830	1,741
,, Bacau District	2,148	1,866
General total	111,456	109,149

..California's Great Oil Gusher..



The prolific gusher owned by the Lake View Oil Co., which has aroused Californian oil operators to greater activity, still continues to pour forth its flood of oil. At first its production was approximately 80,000 barrels per day (this being its yield when the photograph here reproduced was taken), but it is now, according to latest information, flowing at 30,000 barrels per day. In order to stop the flow of oil above the derrick, a huge bulkhead 36 feet square and 12 feet high has been constructed about the derrick to serve as a receptacle for the oil, which now collecting in this space, tends to break up the force of the flow from the pipe.

PRELIMINARY REPORT ON THE TARANAKI OIL FIELD OF NEW ZEALAND.

By Dr. J. M. Bell, Director of the Geological Survey.

The Taranaki petroleum field is situated on the west coast of the North Island, in the neighbourhood of the principal town of the Taranaki Land District—New Plymouth.

How far the petroleum field extends is not yet known. Its limitations can probably be more or less roughly indicated as a result of the geological operations now in progress in this part of New Zealand, but its boundaries can be defined exactly only by systematic drilling undertaken as a result of that survey. From the known surface indications it is thought that the oil field may be found to extend at least as far east as Waitara, and as far south as a line running roughly from four or five miles south of Inglewood, through German Hill, to the coast. Most of this area is included within the survey districts of Waitara and Paritutu, or the area in which a geological survey is now being conducted.

The most striking physical feature in Taranaki is the splendid symmetrical cone of Mount Egmont, the crest of which is perpetually snow-clad. To the west the cone is flanked by a short range of high mammillated hills rising to a height of 4,387 ft., and known as the Pouakai Ranges. To the north and west of these rise to a height of 2,240 ft. the bush-covered hills known as the Patua or Kataki Ranges. North of the ranges the land slopes in general gently to the sea to the northward and westward, and rises towards the eastward perceptibly to near and beyond the Waitara River. The land is rolling or undulating near the sea, but more hilly inland, especially towards the east. The surface forms part of the Wanganui Coastal Plain, more or less shrouded by volcanics, its irregularites being due to dissection by the numerous streams flowing mainly from the cone of Egmont, and draining either directly to the sea or by means of the Waitara.

The coast line for many miles is flanked by low cliffs, marking the denudation of the plain by the sea. A few miles west of New Plymouth the volcanic hills, both on the mainland and on the islands in the sea—known as the Sugar Loaves—form part of an old dissected volcano, of earlier age than Mount Egmont.

As gathered from good surface outcrops in the neighbourhood of the Waitara River and rare exposures elsewhere, and by the records of the numerous boreholes occurring in different parts of the Taranaki oil field, we learn that all of the area now being considered is underlain by the same strata—namely, claystones (locally called "papa"), sandstones, fine conglomerates, and marls. These form part of a great series of rocks which extends northwards, southwards, and eastwards, and which, as judged from the section between Waitara and Te Kuiti, consists in descending order of claystones, sandstones, fine conglomerates, marls, limestones, claystones, and sandstones with coal seams. Pending a more exact classification by the survey now being conducted in the area, this series must merely be classified as tertiary in age.

The tertiary rocks lie generally almost flat or dip at very low angles. They are thought to form part of a great monoclinal fold, dipping southerly and westerly from the Mokau country. Minor cross-swells in the form of anticlines and synclines are in evidence in places, and are thought to be of sufficient importance to markedly influence the position of subterranean reservoirs of petroleum. The tertiary strata, too, have been considerably broken in places by faults—structural breaks which direct the movements of petroleum and allied products from depths beneath the surface.

Overlying the tertiary rocks is a coating of volcanic material of varying thickness in various parts of the area under review. It consists petrologically mainly of semi-basic volcanic rocks, and occurs as tufas, agglomerates, and lava flows. Much of this material, it is believed, issued from the old dissected lava cone now seen in the Sugar Loaves and either from Mount Egmont or the more ancient vent from which that volcano rose, but probably some of it emanated from fissures in the surface elsewhere.

Near the sea coast, especially in the neighbourhood of the Sugar Loaves, occur black sand beds, generally unconsolidated, but in places more or less cemented by iron-oxide. The beds lie in general horizontal, but exhibit false bedding. They shew beds composed mainly of black-sand—ilmenite, magnetite, and titanite—interstratified with beds consisting chiefly of lighter material (quartz sand, felspathic sand, etc.). The black sand beds are lensoid in shape, and are inconstant both in horizontal and vertical extension. Concentration of the heavier and richer material is constantly proceeding as the result of wind-and-wave action. Thus are produced the heaps of black sand which collective amount to thousands of tons. These will ultimately be of economic value.

It will be impossible in the compass of a paper so brief as this report to give a full description of the various vicissitudes through which the petroleum industry in Taranaki has passed. However, it will be necessary to briefly outline its history in order to appreciate what has been accomplished, and to understand the reasons for the choice of locations of existing bores.

Seepages of petroleum were noted by Dr. Dieffenbach as far back as 1839, near the present site of the breakwater. No attempt, however, at boring for the source of this natural product was made until the end of 1865, when exploration in a primitive way was commenced. A number of wells were drilled in the vicinity of the seepagesduring the course of the three succeeding years, the deepest being 650 ft. Though at times during these early efforts small quantities of petroleum were obtained, the results were considered so discouraging that twenty years elapsed before renewed efforts were made to exploit the oil field. In 1888, in great part through the instrumentality of the Hon. Oliver Samuel and the late Sir Julius Vogel, a company was organised in London, which continued operations for about two years. A bore was put down at the rear of the breakwater to a depth of 915 ft. (some authorities say 875 ft.), and a small amount of oil was obtained. Then, for some reason, the company stopped operations, despite the fact that Mr. Booth, the driller of the well, declared that the indications were highly favourable. In 1894 a syndicate known as the New Plymouth Petroleum Co. was organised by Mr. Samuel, who remained its moving spirit for some years, during which some eight bores were put down. Of these, the first was put down to a depth of 1,100 ft., within 8 ft. of Booth's drill hole, and small amounts of oil were raised. The second was sunk on Mr. Mace's farm, at the head of the Herekawa Stream. This bore, called No. 3, was sunk to a depth of 1,534 ft. Not much oil was seen, but large quantities of gas were encountered. The third borehole (known as No. 5) was situated on Putt's farm, on the Spotswood Road. It was sunk to a depth of 2,050 ft., but without the discovery of any favourable indications. The fifth one was somewhat farther inland, being located on Mr. H. Okey's farm, on the Franklyn Road. It was found so difficult to penetrate a mass of loose kidney-shaped stones occurring near the surface that a depth of only 302 ft. was drilled. The sixth bore sunk by the syndicate was on Mr. Veale's farm, some 30 chains from the last site. Drilling was continued by the New Plymouth Petroleum Co. to a depth of 1,220 ft., and later by the present Taranaki Petroleum Co. to a depth of 1,335 ft. The seventh drill-hole (No. 8 of the Samuel syndicate) was located at the upper end of Honeyfield's farm, Moturoa. It was sunk to a depth of 2,052 ft., but without the discovery of any very encouraging prospects. The eighth bore was situated some 80 ft. from the third borehole put down (called No. 4 by the New Plymouth Petroleum Co.), and was sunk to 1,055 ft., when the plant was again moved on to the site af the third bore, which was now continued to a depth of 1,976 ft.

Somewhat previously to these later works, Mr. Samuel's syndicate had dissolved, and their rights, plant, etc., were purchased by Mr. Alexander. He conducted the later operations with a smaller number of shareholders, but eventually closed down, and sold his interests to an Adelaide syndicate, which sent Mr. George Fair to New Plymouth to prosecute further boring in 1904. The first borehole put down was known as the Birthday bore, or the New No. 1. This is situated on Mr. W. J. Honeyfield's property at Moturoa. After getting several small flows of oil the Adelaide syndicate failed to obtain further capital, and went into liquidation. Mr. Fair, however, being sanguine that deeper down were more extensive pools of petroleum, managed to interest a syndicate of local gentlemen, who formed the Moturoa Petroleum Co., and the bore was continued. The bore was sunk to a depth of about 2,230 ft., when, in May. 1906, a fair quantity of oil was obtained, and the ever-troublesome water said to be satisfactorily shut off. From this compatative success dates the inauguration of the various other companies still, or until recently, operating in the field. The principal of these are the Moa Petroleum Co., Ltd.; the Inglewood Oil Boring and Prospecting Co., Ltd.; the Standard Oil Co. of New Zealand, Ltd.; the Taranaki Oil and Freehold Co., Ltd.; the Bonithon Co., Ltd.; and the New Plymouth Petroleum Co., Ltd.; each of which has put down one borehole, mention of which will be made later in this report. At the same time the Moturoa Petroleum Co. underwent reorganisation, and has continued operations under the name of the Taranaki Petroleum Co., Ltd. In addition to No. 1, mentioned above, three new boreholes have been drilled, known as No. 2, No. 4, and No. 5 respectively; while another, No. 3, was continued on the site of the old No. 4 of the Samuel syndicate (the third borehole sunk by that company).

Petroleum oozes out along the beach just east of the breakwater at Moturoa, and this was the indication which led to the drilling in the immediate neighbourhood. No very definite spring from which this oil issues can be located, but it is believed that it comes from a crack or break in the underlying rocks 50 ft. or more in length, or from the upturned edge of these strata resting against the hard rocks of the Sugar Loaves. From this source it would easily well up through the loosely consolidated overlying tufa. However, only very small quantities ever reach the surface—merely traces here and there beneath the boulders on the beach.

A scum of petroleum is frequently seen on the surface of the sea near the breakwater, when the bottom is being dredged.

Gas issues somewhat intermittently in two creeks on Laurent's property near the Carrington Road. As both streams are very muddy and flow over boggy ground, it is thought that the bubbles may merely be marsh-gas, due to decomposition processes near the surface, and not emanating from a deeper source.

Higher up the Carrington Road, above the bore of the Standard Oil Co. of New Zealand, and on the property of Mr. A. S. Petch, a number of gas emanations appear on a small creek, a tributary of the Huatoki. Two (about one chain apart) are especially conspicuous. The upper issues on the edge of the stream on the left side, while the other bubbles forth in a small pool of water filling an artificial excavation. When lighted both burn vigorously for a few minutes, with almost a foot of flame of a yellowish colour. When first disdiscovered and somewhat opened out, the upper jet of gas is said to have burned continuously for ten days.

Further ebullitions of gas on a smaller scale appear on the Huatoki above and below the entrance of the small stream above mentioned. Much of the surface soil of this locality is composed of a curious resin-coloured peat (?), but I am not of the opinion that such strong flows of gas could be derived from this source. They are probably of more deep-seated origin.

(*To be concluded.*)

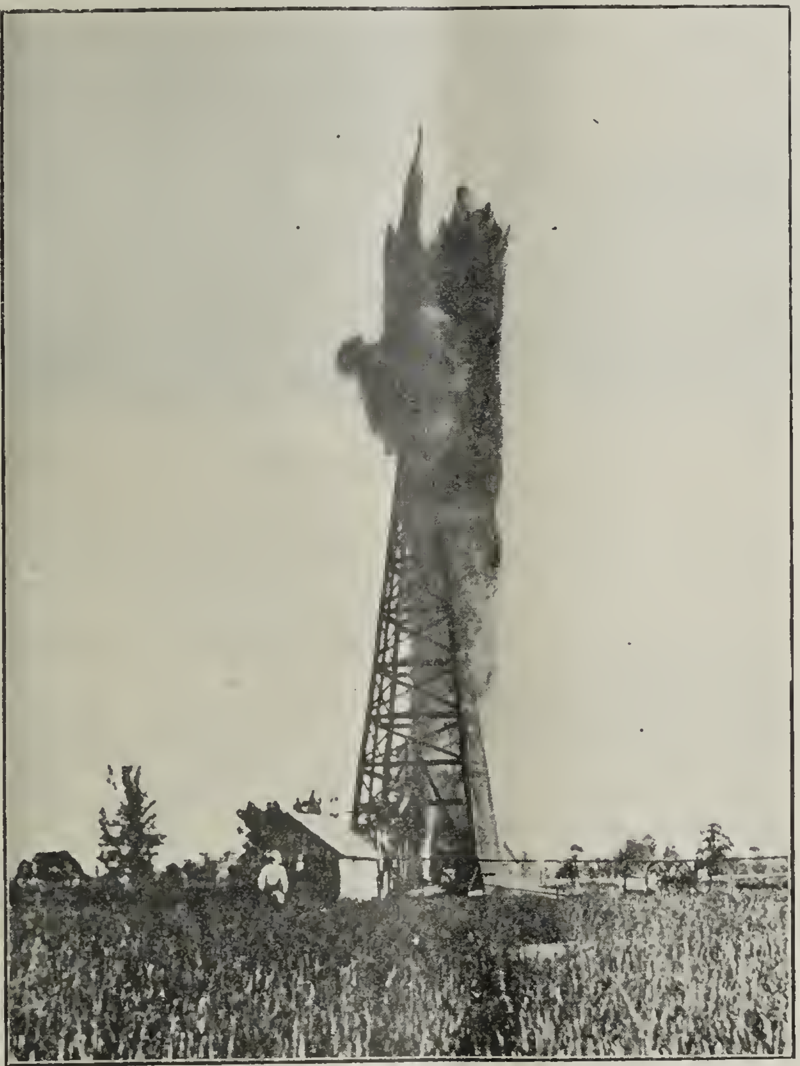
Nitro-Glycerine and the Shooting of Oil Wells.

By Mr. H. P. BOSTAPH.

When drilling for oil, in many instances, the sand where the pay is found, at a depth of from 1,400 to 3,000 feet, is very close and hard, and therefore on account of the small diameter of the hole, being only 6¼ inches across, the seepage is very slow, and for the purpose of breaking up the rock, and at the same time increasing the area to draw from "torpedo," as it is called, is lowered into the hole to this particular point and exploded.

The explosive used is nitro-glycerine, one of the most powerful of known explosives, as well as one of the most dangerous, either to make or to handle.

As there is quite a quantity of the explosive used in the oil country, it is the usual custom to construct a building for the manufacture of the same, in close proximity to the particular oil field in which it is to be used.



The Flow of Oil after the Shot.

Generally the "factory" is built very roughly, and has a primitive appearance, because experience has shewn that it is not a good investment to put up a very substantial building, as one little mistake, or one act of carelessness on the part of the men employed in the making of the nitro-glycerine would cause an explosion that would leave nothing but a large hole in the ground as the only evidence that a factory once stood on that particular spot.

Nitro-glycerine is made by mixing nitric acid and glycerine, or "oil," as it is called. The proportions used are 1,700 lbs. of acid to 124 lbs. of "oil." The two ingredients separate, are practically harmless. Of course, should you get the acid on your hands or body, the parts touched by it would be severely burned, unless immediately removed; but the "oil" is harmless.

The process of making the nitro-glycerine is as follows:—

First, the acid is put into the mixing machine.

This machine is built very much like an old-fashioned churn, only it stands on its end and is considerably larger, and in the top of it are attached two thermometers for recording the temperature of its contents. The idea is to mix the oil with the acid, and in doing so, the oil must be fed into the acid very slowly, for as soon as the oil meets the acid the temperature rises immediately, and by stirring with the mixer, and packing the outside of mixer in ice or submerging it in cold water the temperature is kept down, and in no case must it be permitted to rise above 90° F., for if it does, the whole mixture catches fire, and is liable to explode at any time under these conditions.

After the said amount of oil has been added to the acid, and it is thoroughly mixed, a wood plug is pulled out of the bottom of the mixer, and the nitro-glycerine is allowed to flow into a tank of cold water.

This process is called "drowning it," and is for the purpose of washing out any acid that has not been taken up or mixed with the oil.

From this tank it is allowed to flow into another tank called a "washer." A pipe is connected with the bottom of this tank, through which is turned a stream of cold water. In passing up through the nitro-glycerine, the water carries off all impurities, and as nitro-glycerine is heavier than the water, it remains in the bottom of the tank. After it has been thoroughly washed it is filled into ten-quart tin cans and corked up tight ready for use.

The whole operation requires the greatest care, and after filling the cans, the outside of each one is washed clean, and wiped thoroughly dry, for should even a particle remain on the outside, an explosion would take place and scarcely a splinter of the whole building would be left.

After the explosive has been put into cans, these are stored in a building, called a "magazine," ready for the "shooter," as he is called, to take them to the oil well to shoot the same. For conveying them from the magazine to the well he has a spring waggon, the body being constructed in compartments of such size as to admit one of the cans. These compartments are usually lined with velvet or padded, so as to avoid any possible chance of the can getting jarred whilst being conveyed to the well.

In some oil fields, they use from 100 to 200 quarts in torpeding a well, enough to destroy a large city. The shot is lowered into the well in shells. These shells are made of tin, being cylindrical in construction, and are usually about seven feet long and about five inches in diameter, and holding approximately 20 quarts. On the top of the shell is a small wire bale which is hung on a hook, the hook being attached to a one-quarter inch Manila rope, which is wound on a reel.

While the shell is hanging on this hook and rope at the top of the well, the shooter fills it with nitro-glycerine from the can, and after the shell has been filled, he lowers it to the bottom of the hole with the reel, and when he sets it on the bottom, he unhooks from the bale and reels the rope out and puts in another and another shale in the same way, setting one on the top of the other at the bottom of the well until he has the required amount of glycerine deposited.

It is hard to conceive the terrible danger in connection with this particular part of the operation, for in a number of instances I have been present when the shooter has had one of these shells partly lowered in the well, when the well would start flowing oil, and naturally would float the shell up out of the hole, and the only thing for the shooter to do would be to stand at the hole and wait patiently in the drenching shower of oil for the shale to make its appearance, and when it did appear, to throw his arms around it, and hold it, if he possibly could, for to leave go would mean destruction. It would be useless to run.

Pouring in the Charge.

After the shot has been successfully placed at the bottom of the hole, the next thing is to see that there is a proper amount of fluid, either water or oil, on top of it for weight or tamping. Usually about 300 or 400 feet is enough to properly tamp a shot of this size. Then it is ready to be exploded. To do this, they use what is called a squib. This is a round tin tube about 1½-inch in diameter and 3 feet long, and pointed at the one end.

To prepare this, the shooter first pours about a half-a-pint of nitro-glycerine in the bottom of the squib, and then he prepares a piece of waterproof fuse, the required length, and on the end of the fuse places a nitro cap, something similar to a gun cap, and this he inserts into the squib, submerging the cap into the nitro-glycerine.

After this has been done, he fills the squib with sand and loam and lights the end of the fuse and drops it into the well. The fuse being long enough to give the squib time to get to the bottom of the hole, or to the glycerine, before the fire burns to the cap, and when it does, the concussion from the explosion of the cap causes the whole of the glycerine to explode.

Can you imagine 200 quarts of nitro-glycerine being confined in 6¼-inch hole, 1,400 feet under the surface, with 300 or 400 feet of oil or water on top of it, and then being exploded?

Is it any wonder you feel the jar on the ground a mile away? and that it blows the tamping of oil or water sometimes as high as 200 feet in the air, and almost deafens one after the tamping has been blown out from the roar of the escaping burnt gases, caused by the explosion.

— OIL. —

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CALIFORNIA OILFIELDS, LIMITED.

A THIRTY-FIVE PER CENT. DIVIDEND.

The ninth annual meeting of the shareholders of the California Oilfields, Ltd., was held on Wednesday afternoon, at Winchester House, E.C., Mr. Robert Balfour, M.P., presiding.

In moving the adoption of the report and accounts, the Chairman said that they did not call for any lengthy explanations, but there were certain points in regard to which they might desire more detailed information. The profit for the year amounted to £177,273 0s. 5d., as compared with £155,459 1s. 2d. for 1908. An interim dividend of 10 per cent., free of income tax, was paid in October last. They had redeemed £20,000 of debentures in fulfilment of the obligations of the debenture trust deed, making the total amount redeemed to December 31st, £40,000. They proposed that £20,000 should be transferred to reserve account, thus increasing the amount at the credit of that account to £70 000, and to pay a further and final dividend of 25 per cent , subject to the deduction of income tax. Those appropriations left them with a balance of £25,734 9s. 9d. to carry forward, whereas they brought £22,628 2s. 8d. into the account.

The operating profit for 1909 was about £23,000 more than it was for 1908, whereas the production for 1909 had exceeded that for 1908 by nearly 815,000 barrels; that additional production represented a substantially larger net value than the increased operating profit.

When the accounts for 1908 were made up, there was reason to anticipate an increased production in 1909, and under those circumstances, it was decided to carry forward an amount in equipment and development account, which under their previous practice, would have been written off in the 1908 accounts, and they were also influenced in that decision by the fact that the expenditure for general purposes in 1908 was relatively larger than in previous years. That had resulted in a larger amount being written oft in the 1909 accounts, and in a corresponding reduction of operating profit.

The property of the company was reported to be in satisfactory condition. The new headquarters had proved convenient, and the field operations had been carried on satisfactorily and efficiently during the past year.

Close attention had been given to organisation, and the following communication from a visitor from Pennsylvania—well acquainted with oil fields—would be of interest. He wrote the San Francisco agents of the company on December 31st, as follows:—

"While waiting for transportation to Peru I have had the pleasure of visiting the property of the California Oilfields.

"I believe you have as competent a force of employees as any company in California, and the finest camp in the United States, and I dare say in the world, of its kind.

"More has been done for the comfort and health of the employees than I have seen elsewhere, and I consider this policy, taking everything into consideration, a wise one. You are thus able to secure better men, and to hold them.

"The erection of a recreation and reading room for the men I consider a wise move also. In my own experience I have found that, as a rule, it is advisable to secure married men as drillers, as they are more apt to stay than to drift around. Owing to the great difficulty and length of time and expense it takes to put a well down, you cannot afford to keep changing drillers. The oil fields of California are the most difficult and expensive to operate in, and need the best men that can be secured.

"As to the drilling operations, from what I saw they appear to be carried on intelligently and methodically, but more than this I cannot say, for the reason that it would be necessary for me to spend a considerable time on the property in order to thoroughly learn the conditions and formations before I would feel competent to go into the subject in more detail.

"The engineering department is quite a feature in your organisation, and appears to be well ordered and efficient; it must result in much economy and is evidently in competent hands. The ordering and control of oil well supplies is also conducted under a system which is calculated to protect as fully as possible the interests of the company.

"I desire to add that I am more than pleased with what I have seen of your property, and the energy and enterprise shewn in developing it. With so much undeveloped, but virtually proven, territory a prosperous future is assured."

The number of producing wells on December 31st, 1908, was 73. That had been increased during the year to 82, and on December 31st last there were 16 wells drilling and under repair. Two of the earliest drilled wells had ceased to be producers and had been abandoned. Those wells were of comparatively shallow depth, and, moreover, they were situated nearer than customary to other wells, both in their own and adjoining property, and it was probable that that proximity hastened the period at which they ceased to be productive. Their life had been about five and seven years respectively.

The great majority of their wells were of much greater depth, and that applied also to most of the new wells being drilled. Those deep wells were more expensive to drill and take more time under ordinary conditions to bring to the producing stage, and there was also greater risk of accident, and of consequent delay in completion. Deep wells in good territory might be expected to be more productive and also more permanent than shallow wells.

The production of the California Oilfields for 1909, compared with previous years, as follows:—1909, 4,378,464·04 barrels; 1908, 3,563,678·77 barrels; 1907, 3,242,942·44 barrels; 1906, 2,512,654·58 barrels; and advices since January 1st indicated that it was being well maintained.

The production of the Coalinga district during the past four years has been:—1909, 15,400,000 barrels; 1908, 10,730,000 barrels; 1907, 9,855,000 barrels; 1906, 8,500,000 barrels; and the production of that field for 1909 was larger than that of any other oil field in California.

That growth of production had resulted from the active development which had been going on in the Coalinga district in recent years, and it would be of interest to the shareholders of the California Oilfields to know that productive wells had been drilled adjacent to some of their boundaries, and at points which indicated the probable productivity of such portions of the additional property acquired three years ago, as had not yet been proved.

The production of the State of California in the same years had been:—1909, 58,000,000 barrels; 1908, 48,000,000 barrels; 1907, 40,000,000 barrels, 1906, 32,500,000 barrels. A large production had been developed during the past few months in a field which until recently had been regarded as comparatively unimportant, and there was reason to anticipate that that would add considerably to the State's production during the current year. California now accounted for about one-third of the production of the United States.

Great attention was being directed in these days to the exploitation of petroleum deposits, and a further increase in the world's production might therefore be anticipated. There seemed no reason, however, to apprehend that the supply would be in excess of the demand, unless it might be in isolated areas where transportation difficulties handicapped deliveries to consuming centres.

The supply of petrol and gasolene in the United States was reported to be inadequate to meet requirements, and this was confirmed by a statement to the effect that a large sale of petrol had been made for shipment from the East to the United States. It was interesting in that connection to note that considerable quantities of light crude oil—yielding a comparatively large percentage of high gravity products—were being shipped to San Francisco, and that the freighting steamers were taking return cargoes of fuel oil to South America.

Public references had been made to the adoption of fuel oil by the Admiralty for naval purposes and to the establishment of storage installations at convenient supply points. That implied a widening market for a useful and efficient fuel, which could moreover be handled, especially under inconvenient conditions, with much greater facility and rapidity than coal, and when installations were provided at usual bunkering points it was reasonable to expect that there would be a much larger consumption by mercantile steamers also.

Quotations for crude petroleum in the United States had varied materially during the past year according to quality and proximity or otherwise to consuming markets. In Pennsylvania prices had ranged from $1·75 to $1·45 per barrel; in Ohio from $1·00 to $0·80; in Indiana from 85 cents to 70 cents; in Oklahoma from 35 cents to 30 cents; in Texas from 90 cents to 50 cents; while in California the price had been fairly steady at about 60 cents.

The consumption in California and subsidiary markets had so far kept pace with the increased production, and prices had been well maintained during the past year. Shipments to Pacific Coast ports in 1909 exceeded 5,000,000 barrels, and to the Sandwich Islands and to Central and South American ports they were about 2,000,000 barrels, and the consumption of the principal railroads petroleum in California was stated to have been about [illegible] barrels. The supply of petroleum appeared to have exceeded the demand, not an unusual experience, and that was reflected in the growth of Californian consumption.

He desired to add that the business of the Californian company during the past year had run smoothly and without disturbing episodes, and to express the view that their thanks were due to the services of their general agents' management and staff in California for the satisfactory results which they had the honour to submit to the shareholders. He then moved the following resolution:—

"That the report and accounts for the year ended 31st December, 1909, as submitted to this meeting, be received and adopted, and that a final dividend of [illegible] per cent., less income tax, be paid."

Mr. John Halliday seconded the adoption of the report.

Mr. Cross expressed the opinion that the shareholders should be informed what amount had been written off for depreciation. He added that although the Chairman had mentioned the price of petroleum in California as being 60 cents, he had not informed the meeting of the price the company obtained for it there.

Mr. Hobson expressed a wish to oppose the resolution on the ground that there was insufficient information given in the accounts. The directors, he said, did not, apparently, take the shareholders into their confidence and give them particulars about their concern.

The Chairman, in reply, stated that he had, in his address, stated what the price of oil in California was. The point as to what the company obtained for its production had been raised at previous meetings, and the answer given was to the effect that it was not deemed advisable to publish such information to the world. The reasons for that answer were quite as strong to-day as they were then, and the directors were still of the opinion that the publication of such information might help their opponents, but could not be of any real value to their friends.

The report was unanimously adopted.

Mr. J. S. Harmood Banner was re-elected as a director, and Messrs. Price, Waterhouse and Co. were appointed auditors.

The Chairman, in acknowledging a vote of thanks, said that neither he or his partner, Sir Archibald Williamson, had taken any part in voting at board meetings on matters relating to the agency of the firm which acts in California, or matters pertaining to the company.

* * *

THE BAKU RUSSIAN PETROLEUM COMPANY (1909), LIMITED.

We are officially asked to state that share certificates can now be obtained at the offices of the company, Dashwood House, E.C., in exchange for the share certificates of the old company. Bankers' receipts for application money and letters of allotment duly receipted.

SCIENTIFIC NOTES.

RADIUM AND PARAFFIN.

M. Guilleminot, by means of paraffin filters, has studied the penetrating power of radium emanations, and as paraffin possesses a penetration similar to that of the tissues of the human body, M. Guilleminot considers that it will now be possible to obtain accurate information with regard to penetrating power of various rays without the danger of the accidents of radiodermitis in the therapeutic applications of radium.

PETROLEUM AS MANURE.

An inhabitant of Montpelier (Indiana) has patented a mixture of petroleum and lime as manure. A pipe line was laid through a field planted with rye, and the Indiana Pipe Line Co. had, by mutual arrangement with the owner of the field, to pay all damage which may have been caused to the crop by leakages in the pipe line. But when it came to the estimation of the damages it was noticed that wherever the oil has saturated the ground (composed of lime) the rye grew much thicker. One of the valuation experts after many successful experiments has now patented a mixture of petroleum and lime as manure, and this is widely used now in the States with very good results.

* * *

ENGLISH PATENTS.

(Specially contributed by Messrs. EDWARD EVANS & Co., Consulting Engineers, Chartered Patent Agents, and Enrolled Patent Attorneys of the United States, of 27, Chancery Lane, London, W.C.)

Application Filed in Great Britain.

Improvements in or connected with Lamps for Burning Liquid Hydrocarbons for Lighting and Heating.—John Charles Crampin Beal and Harold Manby Gurney, 27, Lincoln's Inn Fields, London. No. [illegible] of 1910.

Application Published in Great Britain.

Oil Lamps, Stoves, and the Like.—Harry Cole, Hippmarsh's Almont Lamp Co., Ltd., Aston Road, Birmingham. No. [illegible] of 1909.

This relates to oil and like lamps, and consists in the formation of the basket, the wick guard and the wick holder, so that they are detachably connected together and may be removed from, and attached to, the oil container as a single unit, and yet be readily separable for cleaning.

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PETROLEUM ENTERPRISES NOW BEFORE THE PUBLIC.

MAIKOP AREAS, LIMITED.

Under the above title a company, with a nominal capital of £600,000, divided into £1 shares, went to public issue last week for one-third of its capital. The directors of the company are Messrs. William Tregarthen Douglass, chairman of the General Petroleum Properties of Trinidad, Ltd., London; Wallace Bates, director of the Maikop Oil and Petroleum Producers, Ltd.; William Lewis Boyle, M.P., and Lieut.-Col. Charles H. Villiers; the registered offices being at 61, London Wall. The objects of the company are to develop 32 claims, which it has acquired in the Maikop field.

THE OKLAHOMA OIL COMPANY, LIMITED.

During the present week this company, with a capital stock of £150,000, has gone to public issue with 67,500 of its shares. The objects of the company are to purchase the whole of the share capital of the Canadian Oil and Gas Co., and to provide that company with £41,000 additional capital to purchase a further proved territory, and to sink additional wells. It may be mentioned that the Canadian company holds leases on 3,440 acres of territory around Tulsa, Okla., upon which 57 wells have been sunk. The directors of the new company are Sir Edward Stracey, Bart., Sir James Pender, Bart., and Messrs. James Tyhurst and John T. Studley; the registered offices being at Threadneedle Street, E.C.

ANGLO-OTTOMAN OILFIELDS, LIMITED.

With a capital of £50,000, divided into 5s. shares, this company went to public issue this week with 110,000 shares. Its directors are Sir Charles J. Follett, Kt., and Messrs. Edward Hooper and Herbert Wolff, the registered offices being at 20, Bucklersbury, E.C. The company is to acquire and work a petroleum concession in Turkey, which comprises 1,000 acres granted by the Government. The published prospectus was remarkably vague with regard to details concerning prospects, no reports of experts even being mentioned therein.

ROUMANIAN OILFIELDS, LIMITED.

Three hundred thousand of this company's 450,000 shares were offered to the public this week. The board consists of the following gentlemen:—Sir Henry A. Blake, and Messrs. William Lane-Clayton, J.P., William Smellie (Messrs. Meade-King, Robinson and Co., Liverpool, etc.), Alfred Stead (Consular Service), and Thomas F. Wilson, M.P. The company acquires about 4,000 acres of oil land in the Roumanian fields, and it is its intention to develop the same. Upon some of the properties acquired wells are giving a production at the present time. The company's offices are at 81, Cannon Street, E.C.

CANADIAN OIL PRODUCING AND REFINING COMPANY, LIMITED.

This company, with a capital of £125,000, is now offering 75,000 shares at par. It has been formed to develop about 500 acres of oil lands situate in the district of Petrolea, Canada, while the company also acquires a further 250 acres in the township of Moore. Upon the 500 acres of land 250 wells are now producing, while upon the 250 acres there are 100 wells now producing. The abridged prospectus gives no details of the production. The company's directors are—Sir Charles Pawson, Major Charles H. B. Heaton-Ellis, J.P., and Messrs. James P. Murray and John A. Kellaway. The offices of the company are at Capel House, 62, New Broad Street, E.C.

THE PACIFIC AND ORIENT OIL COMPANY, LIMITED.

This company, with the huge nominal capital of £1,500,000, has this week issued 300,000 of the 500,000 7 per cent. participating cumulative preference shares of £1 each to the English public. The company has been formed for the purpose of acquiring and working two concessions granted by the Government of Ecuador, which concession also gives the company the right to several privileges as to the free import of materials and rights as to working the lands for petroleum, natural gas, etc. A very strong directorate is at the head of the new company, whose enterprise is of great importance even to Ecuador itself. The directors are—Sir Frederick Frankland, Bart., and Messrs. Carlton Granville Dunne, H. Noel Hoare, Gerald H. J. Hooghwinkel and William Peach, J.P. The offices being at Finsbury Pavement House.

NEWFOUNDLAND OIL (PARENT) DEVELOPMENT SYNDICATE, LIMITED.

Registered with a capital of £75,000, divided into 300,000 shares of 5s. each, this company issued 200,000 shares to the public this week. Its directorate is as under:—Capt. G. L. Butler, Baron de Kusel, Maj.-Gen. Sir Norman R. Stewart, Bart., Mr. Edward Merewether Bovill and Mr. H. Mallaby-Deeley, M.P., the registered offices being at 62, London Wall. The company acquires 574 petroliferous claims of 320 acres each on the Newfoundland Island, and it is intended that these vast territories shall be immediately developed.

THE SOUTH AFRICAN OIL COMPANY, LIMITED.

Out of its capital of £100,000 this company is now issuing to the public 80,000 of its shares, all of which are ordinaries. The company is to acquire and develop the mineral rights over a large oil-bearing territory comprising upwards of 95 square miles in the Orange River Colony. The directors of the company are Maj.-Gen. Pretyman, Mr. Lewis Levy, J.P., Mr. W. Maitland Edwards (director of the Chatuna Oilfield Co., Ltd.), Mr. Henry Pynegar, and Mr. Neil Mackinnon, the offices of the company being at No. 5, Dowgate Hill, E.C.

BRITISH MAIKOP OIL COMPANY, LIMITED.

The public issue of this company's shares, 885,000 (2s.) of which are now offered closes to-day, the nominal capital being £100,000 divided into 2s. shares. The board consists of the following gentlemen: Mr. Philip C. Tennant, Mr. A. F. Walker, M.P. (director of the Maikop Valley Oil Co., Ltd.), and Mr. Sheffield Neave (director of the Tanganyika Concessions, Ltd.). The company has acquired several plots in Maikop. The registered offices are at 25, London Wall, E.C.

RUSSIAN NOTES.

A Grosny Spouter.—Oil started spouting from the well No. 2 on the plot No. 40 of the Kasbeck Syndicate. The daily output of the well amounts to 100,000 poods.

New Double Tank Waggons.—The Ministry has ordered 1,200 double tank waggons, each of 120 tons capacity. The waggons have two tanks each and can be used for carrying two different kinds of oil.

Inspection of the Pipe Line.—A thorough inspection of the Baku-Batoum pipe line is now being made by a special committee under the direction of Mr. Kozireff, chief engineer of the railway department.

Tcheleken Plots.—A revision will be made by the administration of all the claims for plots of petroliferous lands, as it appears that in some cases the Turks have sold properties belonging to the Treasury.

Increase of Storage Accommodation.—The administration of the Vladikavkas Railway has undertaken a series of works in view of increased storage accommodation for crude and illuminating oil, especially in Ekaterinodar and Novorossisk.

Pipe Line at Apsheronsk.—The Baku Black Sea Co. has commenced the construction of the pipe line which will bring the oil from the various plots of the company to the iron tanks erected in the neighbourhood. This will be the first pipe line in the Maikop district.

A Spouter in Tcheleken.—A wire from Askhabod communicates the breaking out on the 6th of April of a spouter on Hadjinski's property. In a very short time 500,000 poods of oil were ejected, and then on the same day the spouting stopped, as the well corked itself

Activity at Baku.—Great activity is now shewn in the export of petroleum products from Baku. The loading of tankers and sailing boats is proceeding with great speed. About 20 boats are waiting their turn at the wharves of Messrs. Nobel Bros. and the Caspian Society.

Certificates for Exploration on Sakhalin.—The Ministry of Commerce and Industry has included Sakhalin in the number of provinces with scarce population, so that certificates for exploration for oil will now be granted for a term of two years instead of one year as before.

Another Spouter at Tcheleken. — Another spouter has broken out on the Tcheleken Island on the property of Mr. Gadjinsky, and over 500,000 poods of oil were spouted in a short time. The spouter has now stopped owing to obstruction formed in the borehole.

Pipe Line at Shirvansk.—English enterprises are about to construct a pipe line from Shirvansk up to the station Enem on the Vladikavkas Railway, where a depôt will be erected for the export abroad via Novorossisk. The inhabitants of Ekaterinodar are asking for a pipe line terminus at Ekaterinodar.

Tank Waggons.—The number of tank waggons now at liberty for the transport of petroleum products from Baku amounts to 13,750, besides 1,530 in repair. Another 1,200 waggons are in construction. A number of waggons specially adapted for carrying low flash products will also be supplied for the Baku service.

The Transport of Kerosene to Siberia.—The transport of kerosene from the River Kama, one of the rivers of the East Siberia, which was organised by Messrs. Nobel Bros. a few years ago, is considerably progressing, and with the coming navigation 1,000,000 poods of kerosene will be transported in this way. Messrs. Nobel's barges go from Astrakhan to Levshino near Perm, where the oil is transferred into tank waggons which carry it by way of Ekaterinburg and Tumen to the River Tura, where it is again transhipped into barges and carried then on the East Siberian rivers.

OIL FIELD MANAGER.

WANTED, thoroughly qualified Oil Field Manager. Must be Trained Engineer and Capable Organiser to supervise large staff in tropical country. Full particulars of experience with copies of testimonials, salary required, etc., to "Oilfields," c/o Streets, 30, Cornhill, London.

ROUMANIAN NOTES.

Tintea.—The daily production on this field now amounts to 300-350 tons, of which the Orion's part is 200-250 tons.

Moreni.—The general production on this field maintains the figure of over 2,200 tons per day, of which the Romano-American produces 1,200 tons a day, the Regatul-Roman 450 tons, and Astra 280-300 tons.

The Romano-American's Profits.—This company closed the year 1909 with a net profit of 202,758 francs, which added to the balance of net profit made in the previous year brings the sum disposable to 1,212,275 francs.

Production Statistics.—The production during the first three months of the year amounted to 342,200 tons, as against 280,171 tons produced for the corresponding period of 1909, shewing an increase of 62,000 tons, or of 22 per cent.

Roumanian Oil on the Turkish Market.—Out of 3,400,000 cases of oil imported into Turkey in 1909 950,000 were of Roumanian origin. In the Tschibukli depôt of Constantinople 32·5 per cent. of the oil imported was Roumanian.

Roumanian Fuel for the English Navy.—The first tanker of the English navy will arrive at Constanza at the beginning of June, for loading 5,000 tons of residuals out of the 30,000 tons bought by the Admiralty from the Steaua Romana.

Production.—The general production continues to increase. The well of the Romano-American, which opened at the beginning of April with an output of 1,000 tons a day, still yields the same quantity by regular eruptions. It is probable the production in April will prove a record one.

The Market.—Prices for crude remain steady at 3·20 to 3·30 francs (100 kilos.) for Bustenari oil, 2·50 francs for Moreni, and 2·20 to 2·30 francs for Tintea oil. There are no large quantities of crude oil on the market, as lately the total production of some firms has been bought over by Hungarian refineries.

Exportation.—The exportation continues to be very active, but at present prices do not leave any appreciable profit to the producers. At present there are no hopes of prices improving, as the fight between Galician and American oil continues on all the European markets. The effect is felt even on the Eastern market, which until now was not influenced by this competition. The total exports for the three months of the year amount to 111,000 tons, as against 90,550 tons during the corresponding period in 1909.

GALICIAN NOTES.

The Premier Petroleum Company.—The offices of this company are transferred to Tustanowice.

A Good Dividend.—The Carpathian Petroleum Co. is going to pay its shareholders a dividend of 30 crowns per share, against 15 paid in the preceding year.

To Diminish Fire Risks.—All the new derricks which the Galician Carpathian Co. are now erecting on the Boryslaw-Tustanowice fields are being covered with sheets of tin, which will considerably diminish the dangers from fire.

A New Benzine Refinery.—A group of capitalists, owners of the Kralup petroleum refinery, have formed a syndicate for erecting a refinery of a working capacity for 8,000 tons of benzine and 5,000 tons of illuminating oil. A contract for deliveries of crude oil has been secured for several years ahead.

Sales of Crude Oil.—Of the incoming crude oil the National Association of Petroleum Producers has sold up to the present 500,000 tons. There are now in store:—In the earthen reservoirs of the Association 571,000 tons, in tanks 64,300 tons, and in various depôts 25,000 tons. As soon as the earthen reservoirs at Kotpiec are ready the debenzination station at Drohobycz will take over from the association 600,000 tons of oil.

The Petroleum Monopoly in Austria.—It appears that the Austrian petroleum monopoly will not concern either the production nor the sales. According to latest information the State will simply buy all the petroleum produced from the producers at a certain price, and will re-sell it to the refiners without any profit, but it will participate in the profits resulting from the sales of illuminating oil. Each refinery is to receive a determined quantity of crude oil for treatment.

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Servian	**6,700**	**Terek**	**5,200**	**Rock Light**	**4,100**
Carpathian	**6,700**	**Balakani**	**5,200**	**Lux**	**2,900**
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LATEST QUOTATIONS OF PETROLEUM SHARES.

ENGLISH COMPANIES.

This list is restricted to companies who have paid dividends or who are producers.

Company.	Capital Paid Up.	Value of Shares.	Latest Prices.
Assam Oil	£310,000	£1	15/-16/-
Bibi-Eybat Petroleum Co. ..	£380,000	£1	5/0-6/0
Californian Oilfields	£400,000	£1	$5\frac{13}{16}$-$5\frac{15}{16}$
Commonwealth Oil Co. ..	£500,000 Pref.	£1	$\frac{11}{13}$-$\frac{13}{16}$
,, ,, ..	£225,000 Def.	£1	$\frac{5}{8}$-$\frac{3}{4}$
Lobitos Oilfields, Ltd. (£1) ..	£360,000	£1	30/6-31/6
Pacific Oilfields, Ltd. (£1) ..	£200,000	£1	20/0-21/0
Russian Pet. & Liquid Fuel ..	£500,000 6½% Pref.	£1	2/0-3/0
,, ,, ...	£600,000 Ord.	£1	2/0-3/0
Schibaieff Petroleum ..	£575,000 6% Pref.	£5	6/0-8/0
,, ,, ...	£575,000 Ord.	£1	1/0-2/0
Shell Transport & Trading ..	£2,300,000	£1	91/0-92/0
,, ,, ,, ..	£1,000,000 Pref.	£10	$10\frac{7}{8}$-$11\frac{1}{8}$
Spies Petroleum Company ..	£465,000	10s.	27/6-28/6

RUSSIAN COMPANIES.

Company.	Nom. Value in Roubles.	Latest Quotations. Lowest Roubles.	Latest Quotations. Highest Roubles.
Baku Naphtha Co.	100	331	350
,, ,, ,, (issue of 1908) fully pd.	100	337	339
Balakhany Naphtha Co.	250	—	—
Caspian Society	1,000	4,525	4,550
Mazout Co.	250	—	—
Melikoff, A. C.	250	—	—
Mirzoeff Bros.	250	—	—
Naftalan Co.	250	—	—
Naphtha Co. "Kavkas"	250	—	50
Naphtha Trading Co., A. I. Mantacheff & Co.	250	128	129
Neft Co.	250	260	—
Nobel Bros.	5,000	11,350	11,400
,, ,, ...	250	—	598
Rops and Co. V...	250	315	316
Russian Naphtha Co.	250	—	—
Society Mazout	250	—	400
Ter-Akopoff Co.	250	—	—
Tumaieff & Co., J. G.	250	96	—
Volga-Caspian Naphtha and Trading Co	250	—	—
,, ,, ,, (Second Issue)	250	—	—

SCOTCH COMPANIES

Supplied by MESSRS. MACLEAN AND HENDERSON, STIRLING.

Company.	Capital Paid Up.	Value of Share.	Latest Prices.
Anglo-Persian Oil Co., Ltd., 6% Part Pref. (10s paid)	£150,000	£1	11s. 6d.
Do. 5% Deb. Stock	£600,000	£100	£96 5s. 0d.
Broxburn Oil Co., Ltd., Ord. 17/- pd	£235,000	£1	£1 16s. 0d.
Do. 6% Cum. Pref. ..	£100,000	£10	£12 0s. 0d.
Burmah Oil, Ord.	£1,100,000	£1	£6 0s 0d.
Do. Pref.	£250,000	£1	£1 8s 6d.
Dalmeny Oil Co., Ord. (7 paid) ..	£37,800	£8 10s	£5 2s. 6d.
Do. 5% Pref ..	£18,900	£7	£4 10s. 0d.
Oakbank Oil Co., Ltd., Ord.	£170,000	£1	£1 17s. 9d.
Do. Pref. (£1 paid)	£100,000	£1	£1 4s. 6d.
Pumpherston Min. Oil Co., Ld., Ord. (17s. paid)	£110,500	17s.	£8 5s. 0d.
Do. 6% Cum. Pref.	£100,000	£10	£12 13s. 1½d
Tarbrax Oil Co., Ltd. Ord. (£1 pd.)	£65,000	£1	£2 0s. 0d.
Do. 6% Cum. Pref.	£40,000	£1	£1 4s. 6d.
Young's Paraffin Co., Ltd., Ord. ..	£452,808	£4	£3 0s. 6d.
Do. "B" Deb...	£150,000	£100	£160 0s. 0d.

DUTCH COMPANIES.

Company.			Latest Quotations (per cent.)
Dordtsche Petroleum Industrie My.		Aand.	190
,, ,, ,, ..	Pref.	,,	214
Int. Roum. Petroleum Maatschappij		,,	25½
Royal Dutch Petroleum Co.	Old	,,	527
,, ,, ,, ...	New	,,	498
Mœara Enim Petroleum Maatschappij ..		,,	252
Oklahoma Petroleum Co.	Pref.	,,	133½
,, ,, ,, ...	Ord.	,,	51
Perlak Petroleum Maatschappij		,,	146¾
Sumatra Palembang Petroleum Maatschappij		,,	197½
Zuid Perlak Petroleum Maatschappij ..	Pref.	,,	180
Union Petroleum Co.		,,	93⅓
Bibi-Eybat Petroleum Maatschappij		,,	29
Russian Petroleum and Liquid Fuel Co. ..		,,	20
,, ,, ,,	Pref.	,,	21
,, ,, ,,	(6% Debs.)	,,	40
Schibaieff Petroleum Co. (Ord.)		,,	9
,, ,, ...	Pref.	,,	20
Shell Transport and Trading Co. ..	Ord.	,,	750
Tulsa Petroleum Co.		,,	93

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THE
PETROLEUM REVIEW,
45, St. Mary Axe, LONDON, E.C.
American Office: 150, Nassau Street, New York.

SATURDAY, MAY 7, 1910.

THE VALIDITY OF MAIKOP SETTLERS' PLOT TITLES.

IT will be remembered that some weeks ago, while Dr. Dvorkovitz was upon a tour of inspection in Maikop, the daily press gave prominence to a statement which he made respecting the extreme caution which should be exercised in regard to the titles of plots taken up in the Maikop oil field.

Dr. Dvorkovitz then pointed out that some of the claims which were being offered on the London market did not belong to the Cossacks, but were what are known as "settlers" claims, and he also stated that such claims were upon the authority of M. Verbitcheff, an eminent legal authority at Ekaterinodar, declared to be valueless, as no clear titles could be secured.

M. Verbitcheff has now favoured the Review with a detailed statement as to these settlers' claims, and inasmuch as many of these are at present upon the London market, it will be seen that considerable importance attaches to his remarks, coming as they do from one of the most authoritative legal gentlemen in Russia.

At the outset, M. Verbitcheff refers to the statements which were communicated from Maikop by Dr. Dvorkovitz to the English press, and the fact that these were criticised. This criticism, he adds, must have been from persons who were not at all familiar with the actual position of affairs, and therefore must be taken *cum grano salis*.

Our learned friend then continues: "For the purpose of preventing as far as possible the English public being very bitterly disappointed in the future, I consider it a moral obligation to give all possible information regarding these settlers' claims of which I am in possession.

"At the beginning of the seventies, the land now in the petroliferous regions of Maikop was occupied by mountain tribes, with whom Russia was constantly at war in an endeavour to secure occupancy of the territory. Gradually the tribes were either subdued or they fled to other districts, and their place was taken by the Cossacks.

"For the purpose of getting a larger number of Russian emigrants to settle in the Maikop district, a law was passed in May, 1862, according to which each 'family,' which was voluntarily willing to settle in Maikop on the land taken away from the mountain tribes was to receive as a 'family' a perpetual grant of from five to ten dessatines of land—from about 13 to 27 acres. Such 'families' had to consist of two grown-up men as a minimum. For instance, this 'family' could consist of a father and his sons or brothers and their families, or it could even be a 'family' of two men who were strangers to each other, so far as relationship ordinarily goes. These 'families' were inscribed as such, and it was to them that the land was given, as opposed to its going to distinct individuals, and it was amongst the members of these 'families' that they among themselves arranged different sections of it.

"This arrangement, however, only continued for about two years, for the settlers became more and more surrounded by the mountain tribes. A great many of them were killed, while others fled back to Russia. But the rights to the land were given permanently, and thus neither the death of any member of these 'families' nor even that of the whole 'family' annulled their claim, for it naturally passed on to their heirs. These 'families' of settlers therefore never lost their rights to the claims originally granted them, and even last year the Cossacks recognised this principle, in spite of the fact that not a single whole 'family' of settlers is alive to-day. The Cossacks issued certificates on the rights of the land to the first settlers, and by this means thus allowed the heirs to the settlers to prove their rights. As may be well imagined, to collect evidence of such original rights is to-day very difficult indeed. It is of course possible to prove that a certain person of some 'family' has that right, but it is an utter impossibility to prove that no other person has not equally the same right, for he may be one of the rightful heirs of the original 'family' to whom the grant was first made.

"In order, therefore, to prove or make quite sure that these claims do belong to certain persons, it is necessary to get evidence that no other person exists who may come forward with his claim, and naturally this is out of the question.

"According to Russian law, if in the course of ten years a person does not claim his rights, he loses them, but for that purpose it is necessary that he should be over age when he gained the right, otherwise, of course, he must reach maturity before he claims.

"For instance, says M. Verbitcheff (and this is one of many actual cases), a settler was killed, or he died, in 1870, having left his son or daughter as heirs to the claim, they at that time being but a year or two old. These two went back to Russia. Possibly the other members of the old 'family' stopped on the claim in Maikop, and it may be that they do not even know of the existence of the aforesaid son or daughter. We now presume that the heir who went back to Russia died when quite a young man, yet left an offspring who is still heir to the claim, which cannot be annulled by the passing of time. This heir has naturally the right, or part of the rights, upon that claim, and as a matter of fact, continued Mr. Verbitcheff, such cases I have had to decide while I was a member of the Ekaterinodar High Courts in 1905. Even after I have refused to certify the rights of the first settlers to their claims, many would-be heirs have come forward to certify themselves as having belonged to the 'family' to whom the claim was originally granted, yet even then there is nothing to guarantee that other heirs will not come forward to claim their rights."

But what will strike home more than anything else to those who feel inclined to purchase these Maikop settlers' claims is the statement that even if an heir came forward having a one-twentieth right to the claim, this would be sufficient to annul its transfer to other parties.

There is, at least, great food for reflection in the last sentence.

THE TIN PLATE MARKET.

Messrs. Norton, Owen & Co., of 4, Bishopsgate Street Within, London, E.C., report under date May 5th, 1910, as follows:—

The position is unaltered, and prices are unchanged as below. The general condition of the tin plate trade is highly satisfactory, as is shewn by the extensions of plant which are progressing rapidly. The increasing consumption of oil in all directions—terrestrial and celestial—augurs well for the future of the tin plate trade.

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THE CALIFORNIAN-MEXICAN PIPE LINE.

Full Details.

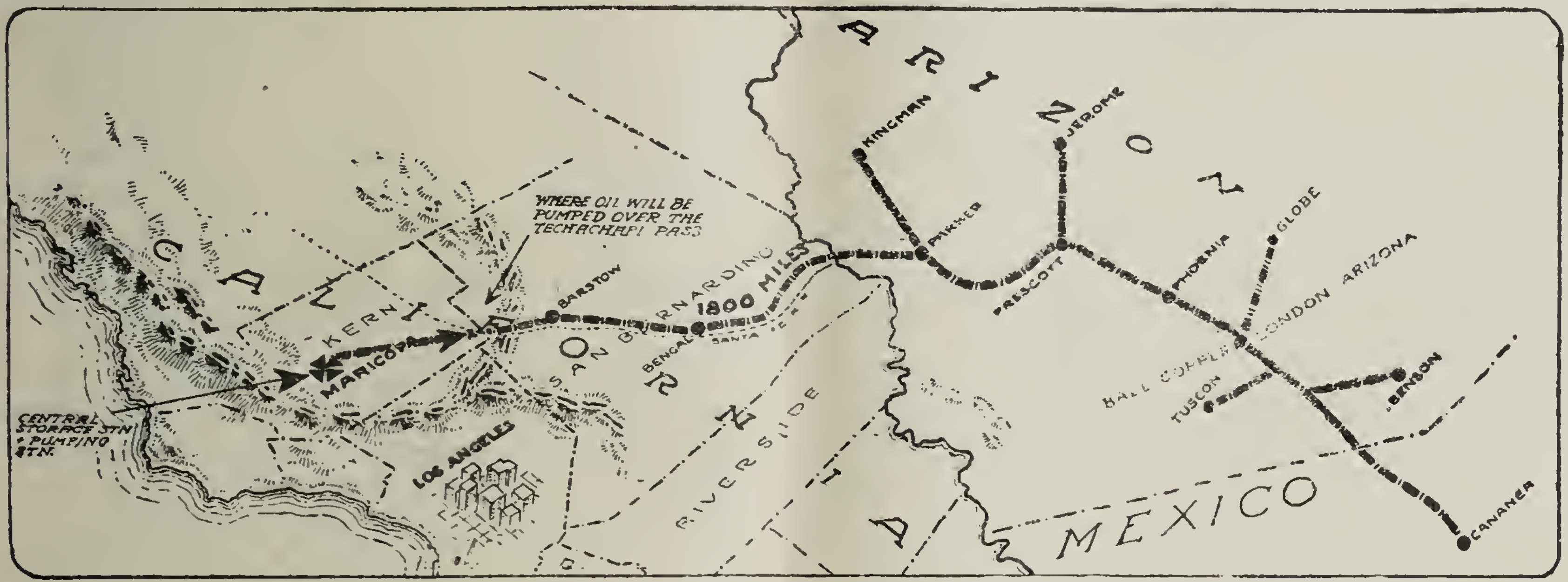
. . From Our Own Correspondent. . .

Los Angeles, Cal., *April 22nd.*

A number of independent California companies in the San Joaquin Valley recently met, and the result is an 1,800-mile pipe line, on which work has already begun, from the Maricopa fields down through Arizona into Mexico (a fact which was announced in the last issue of the Review, page 221).

The American Oilfields Co., The American Petroleum Co., Union Oil Co., Midway Union Oil Co., Consolidated Midway Oil Co., and a number of other concerns in the vicinity of Bakersfield, Cal., are to market practically 45 per cent. of their output through the California-Arizona Pipe Line Co., as they have named their corporation. The rest of their product can be disposed of at home.

Within two years, if the history of pipe lines be repeated, the profits of the undertaking will have been sufficient to cover the total cost of the line, a matter of $8,000,000, in addition to paying interest on the investment, and balancing the depreciation account.



All this has a bearing on the development of Arizona—soon to be a State. The huge Arizona metallurgical plants will receive fuel at a much reduced cost, at the same time that one of the greatest projects thus far conceived in the course of the development of the oil industry in California is demonstrating the ability of independent producers to successfully compete against any opposition. At present, 300,000 barrels of oil from California are finding a market in Arizona every month. This pipe line will increase the Arizona consumption of California petroleum by at least 500,000 barrels, making a total movement of nearly 1,000,000 barrels a month to the neighbouring and rapidly growing territory, and to Sonora, Mexico.

From the Maricopa field the 8-inch continuous stream of black petroleum will take the most direct route into Arizona, and that will be by paralleling the Santa Fe and Southern Pacific railroads wherever practicable. This will also be a matter of economy, as the railroads will deliver the tons and tons of pipe and the enormous boilers for pumping stations right on the ground of the line. Starting at Maricopa, the pipe line will traverse the San Joaquin Valley toward the mountains, and then wind up the sides of the Tehachapai, creep down the steeps of the other side of the range, and then make the journey across the Mojave desert. Barstow will be one of the points touched by this route. Then in the course of its progress into the heart of industrial Arizona the line will reach Bengal. Thence it will run to Parker where a branch line will run to Kingman. From Parker it will go to Prescott where another branch will carry the oil to Jerome. The main line will continue to Phœnix, thence to the power site of the London-Arizona and Ball copper mines, where another branch will run north 60 miles to Globe. The main line will continue to Cananea, Mexico, with still other branches running to Tucson, Tombstone, Bisbee, Douglas, Benson, Clifton and Morenci.

At these smelting centres is produced approximately 25 per cent. of the United States copper. Along the line are enormous mining districts, which produce the raw material for the smelting plants. Under present conditions these great industries of the south-west, dependent as they are upon the railroads for the delivery of their fuel, are often seriously embarrassed because of the delay in transportation, and some very severe losses have been known to occur because of failure to receive fuel.

The pipe line will insure regularity of fuel supply. The cost of delivery of oil to Arizona points will be cheaper. Cheaper fuel has for its first result increased activity. Cheapening the cost of production is an encouragement to the development of new territory; and Arizona, thus equipped, and putting on the robe of Statehood, expects to make rapid strides in assuming its position as an equal State in the Union.

A large part of the territory is devoted to mining and smelting. New copper country is being developed in different sections of the territory. Along the Colorado River, both in California and Arizona, on the Bill Williams River, and in the Gilla Valley are extensive developments, including the districts of Ray, London-Arizona, Ball, Miami and Inspiration. These are only a few of the many scenes of industry that will be benefited by the new pipe line, which means much to the industrial development of the Great South-west.

THE RUSSIAN OIL INDUSTRY DURING 1909.

CONSULAR REPORTS.

Mr. P. Stevens, H.M. Consul at Batoum, has just issued his report upon the trade of Batoum for 1909. He points out that the production of petroleum was very low at the commencement of the year, but after February it steadily increased, and in the second half of the year was greater than for several years past. A marked feature of the oil production was the increased yield of wells situated on the old oil territories at Balakhany, Saboontchi, and Ramany.

The Maikop oil fields are fast coming to the front, as is evidenced by the prolific gusher which commenced to flow in August last, the petroleum from which is reported to have gone to waste owing to no provision for storage accommodation having been made.

Boring operations at Baku were carried on with less activity in 1909 than in 1908.

The quantity of petroleum products transported by the Caspian Sea to Astrakhan was 1,221,805,410 gallons in 1909, as against 1,140,121,955 gallons in 1908. The shipments of petroleum products from Batoum during 1909 amounted to 173,823,585 gallons, as against 155,706,540 gallons in 1908.

The bulk of the decrease in exports of oil during the past few years has been in the exports of kerosene to Far Eastern markets, which may now be said to be irretrievably lost to the Russian petroleum industry.

Railway Tariff for Transport of Kerosene.—The question of a reduction in the railway freight rates for kerosene was raised in St. Petersburg on several occasions during 1909 as a measure necessary to foster the export trade in Russian illuminating oils. Accordingly, on November 30th last, the Council of Baku Naphtha Producers made representations in this direction to the Minister of Finance. The measure was found to be important owing to the struggle that was then taking place between America, Roumania and Russia for the export trade in kerosene to the United Kingdom. Towards the end of the year Russian exporters were compelled to conclude business transactions at prices varying between 39 and 40 copecs per pood, f.o.b. Batoum. The tariff for the transport of kerosene from Baku to Batoum is 19 copecs per pood, to which must be added a further 2 copecs per pood for local port and other expenses. The cost price of kerosene at Baku during most of the past year ranged between 25 and 32 copecs per pood. Consequently, in exporting kerosene from Russia to the United Kingdom at 40 copecs, exporters were at a dead loss of several copecs per pood—hence the enormous decline in exports of Russian illuminating oils. A reduction in the rate for pumping light oils through the pipe line would enable Russian producers and exporters to renew their old connections with British and Continental importers, and would undoubtedly increase the revenue derived by the State pipe line, which has for several years past been working at less than half of its capacity.

Matters having reached this unsatisfactory point, the interests of the trade require that immediate steps should be taken to improve the situation; it is this condition of things which has induced the calling of a meeting of the Tariff Committee at St. Petersburg for the purpose of revising the existing petroleum transport tariffs on the Transcaucasian and Vladikavkas Railways for oils carried from Baku to Batoum and from Petrovsk to Novorossisk.

Mr. A. E. R. McDonnell, British Vice-Consul at Baku, reports that the disastrous period, 1904-6, has not been altogether without beneficial results. The oil industry is now worked on a much sounder basis, and businesses are carried on rather as commercial undertakings than as speculative enterprises. Methods of business have greatly altered, and economy in every direction is engaging the attention of owners.

The prices for crude oil and residuum remained fairly level throughout 1909. The year opened with the price of crude oil at about 21 copecs and of residuum at 21¼ copecs per pood; prices rose as usual during the open navigation season until, in June, 23 copecs was reached, after which they sunk to 18½ copecs at the end of the year. The average price during the year should work out at about 21 copecs per pood for crude oil, which is about 1 copec below the average of the preceding year.

The total production of crude oil in 1909 was 2,146,225,952 gallons, an increase of about 100,625,000 gallons on the preceding year. It is understood that it is only by increased drilling activity that a rise in production can be expected, yet the following figures appear to be diametrically opposed to such a conclusion:—

		1907.	1908.	1909.
New wells brought in	No.	235	271	208
Production ..	galls.	2,082,500,000	2,043,125,000	2,146,225,952

It must be supposed that, in 1908, either the new wells brought in were of less value than the old wells ceasing production, or that some other force was at work to keep the production below its possible level. This other force is to be found in the fact that 1908 was a year fraught with incessant labour troubles, from which 1909 was completely free. Consequently, in spite of the marked decrease in drilling activity in 1908 and the consequent small number of new wells brought in in 1909, there was a marked increase in the production. In 1909 there was a further decrease, only 182 new wells being commenced, as compared with 217 in 1908, which will mean a correspondingly less number of new wells to be brought in in 1910; an increase in production should not, therefore, be looked for this year. In a great measure this decrease in drilling activity may be accounted for by the fact that practically no new lands have been taken up, but there is also a great tendency to repair old wells, the principal reason for this being that, in old wells, water trouble is likely to be less serious than in new.

The equivalent of gas reckoned in gallons of oil produced on the Surakhany gas field in 1909 was 22,548,969 gallons, to which must be added 1,312,619 gallons of white oil and 7,509,455 gallons of dark crude oil. Activity in this field is increasing, and there are now 11 wells producing gas, 3 wells producing white oil, 3 wells producing dark crude oil, 26 wells being drilled, and 10 wells being deepened and repaired. Since the beginning of 1910 a large spouter of light crude oil has been struck, which is still producing.

At Binagadi drilling still continues, and the production this year is reckoned at some 35,000,000 gallons. In January, 1910, a small spouter was brought in, but this is at present of little importance. Much attention has been given to the island of Tcheleken, where oil and ozokerite are found. The oil is of a very high quality, bearing from 7 to 10 per cent. of pure paraffin. A large spouter, which produced 5,250,000 gallons of oil, was brought in and corked last year. This property and adjoining lands have lately been engaging the attention of foreign capitalists. Boring activity continues on Holy Island, where several of the Baku companies have taken up claims. Attention is also being given to a new field near Shemaka, about 40 miles from Baku. Of the principal oil companies, fourteen paid in 1908 an average dividend of 12 per cent., sixteen worked at a profit which was written off to depreciation and no dividend declared, and seven worked at a loss—three of the last being British undertakings. The conditions of 1909 having been better than 1908, it is expected that the profits will be larger.

THE OIL FIELDS OF GROSNY.

SPECIALLY WRITTEN BY MR. J. STREEZHOFF FOR THE "REVIEW."

It is now seventeen years ago that development by boring was first introduced on the Grosny naphtha-bearing lands. Since that time its commercial and industrial importance as well as the naphtha-bearing qualities of the field have been clearly determined. The total amount of naphtha produced from the field so far amounts to 550,000,000 poods, and the annual production at present is 55,000,000 poods. The region can, therefore, be considered as a very productive one, and capable of maintaining several very large concerns.

The Grosny naphtha-bearing region is a narrow and long strip of land, extending from east to west. The length of this strip of land is 11½ kilometres, whilst the breadth is 1,500 metres. It commences at a distance of 9½ kilometres from the town of Grosny, and stretches to the west.

The deposits at Grosny are generally of Miocene epoch, of tertiary system. The layers forming the oil field may be divided as follows, beginning from the top:—

(1) After-tertiary and present formations (Holocene). Sandy clays and argillous gravels. These predominate on the surface on the border of the Grosny region in ravines and valleys.

(2) Akchagil-strata of Maeotian age (Upper Miocene). Shell limestone, marl, grey sand, grey clays, and sandstone. Contains typical fossils of Maeotian age: Cardium dombra, Mactra subcaspia, Mactra Karabugasica, Potamides caspius, Clessinia, etc. These strata are more than 250 metres thick. They repose on the Grosny bed from the top and the sides, and encircle the centre of the Grosny field. In the lower parts of these layers are embedded breccia conglomerate and gravel.

(3) Yellow and grey clays with remains of fossil fish, birds, etc. (whales). Thickness, about 300 metres. Middle-Sarmatian age of Miocene.

(4) Cryptomactra-strata of Middle-Sarmatian age (Miocene). Light-yellow sandy clays and marls, contain Cryptomactra pes anseris and Coralliodendron. Thickness, 100 metres.

(5) Syndesmia-strata of Lower-Sarmatian age (Miocene). With Mactra fragilis and Syndesmia reflexa. Blue-grey and yellow clays changing lower to dark, contains streaks of marls. In them are embedded one close to the other eight thin layers of marl. Below the marls there are dark clays and sandstones with water. Total thickness, 165 metres. All the above layers are being exposed on the surface.

(6) Spaniodontella-strata of Mediterranean age (Lower Miocene). Black clays, grey and green sandstones and marls, contain Spaniodontella pulchella. Upper sandstones contain water, lower contain naphtha. Of these beds only the upper layers are being exposed to the surface, and the lower are met with in the holes. Total thickness of these strata is about 270 metres.

(7) Spirialis-strata of Mediterranean age (Lower Miocene). Black and dark grey slaty clays and clayee slate, sandstone amongst which there are naphtha containing layers. There are also the streaks of marls. These strata contain Spirialis, Pecten, Leda, Buccinum and others. The total thickness is about 370 metres.

The beds of the Grosny oil field have a form of anticlinal fold, the southern dip being slight and the northern dip steep and even turned in, so that it is in the shape of an inverted fold. The axis of the fold is not in a straight line but somewhat bent, and the convexity is towards the northern side. The central part of the fold is somewhat higher than it is at the eastern and western portions. These latter two parts gradually run into the deep under an angle of inclination to the axis of 8°. Owing to this the deeper layers are exposed in the central part, and running along the axis to the west and and east they gradually go into the depth, and are being covered by the adjacent upper layers. In the same manner the more younger layers in the direction from the south to the north from the axis replace the deeper layers on the slopes of the fold.

The following changes in the general methods of working the region have been made since its commencement.

From the beginning it was proved that the Grosny naphtha-bearing beds are an anticlinal fold of tertiary deposits. This alone was quite a safe proof of the importance of this land, from a practical point of view. As is the case with all anticlinal oil fields, the top layers were especially rich near the axis of the anticlinal. And it is an actual fact that the first boreholes on new plots near the axis of the fold produced enormous fountains of naphtha.

I had occasion to point out in 1902 that the Grosny naphtha containing anticlinal fold is inverted to the north with a steep and bent in northern slope and slightly inclined southern dip, that the strip along the axis of anticlinal was not the best strip of naphtha containing bed, and that special attention should be paid to the southern slope.

However, in working the operator has kept as near as possible to the axis of the anticlinal, as it was thought advisable at that time.

It was pointed out in 1904 that it was high time that the axis of the anticlinal should no more be considered as the richest portion of the naphtha containing bed, and that boreholes should not be placed near to the axis. The report to the Tersky section of the Imperial Russian Technical Society, 1904, stated that in the southern slope far greater quantities of naphtha are contained than in the axial summit of the fold, and that boreholes should be made in that southern slope and as far away from the axis as possible. As the layers in the southern slope are much deeper than those nearer to axis the former are better preserved from natural exhaustion, and must certainly contain enormous quantities of naphtha.

The next evolution in the working of the region is that the new holes are being bored on the southern slope as far as possible away from the axis of anticlinal fold, and it has been proved that the southern slope is by far the richest in naphtha, and especially the deep layers. Another advantage of the southern slope which has also been proved is that the production from the holes which were bored away from the axis of the anticline does not exhaust so quickly as the production from the holes near to the axis, and for a long time keeps at the same level. This is, of course, quite natural, as the holes which are away from the axis of the anticline command a larger feeding, they also getting that naphtha from the bottom of the layer which runs between the borehole and the axis of anticline. Generally speaking, the boreholes on the southern dip owing to their continuous and stable production must be considered of a special value.

Finally, in 1906 it was pointed out that in addition to the layers then already known new layers would be discovered at a greater depth, and that they would, of course, be searched for not near the axis, but on the southern slope at some distance from the axis.

All further working of the plots bore out this suggestion and adhering to this indication the seventh naphtha containing layer was discovered in 1908.

After having surveyed the former manner of working of the Grosny field, and, judging by the present, I can come to the following conclusion, viz.: —

The future prospects rest with the southern slope of anticline. Borings on the southern slope can be made way from the axis for a distance up to one kilometres and over. Of course, by going further south from the axis the naphtha layers are situate at greater depths, and to reach them deeper borings will be necessary. Depths from 800 to 1,200 metres must not in any way frighten the naphtha workers.

At present there are at Grosny wells 975 metres deep, and some are now in boring which will be over 1,000 metres deep, while in Galicia there are wells over 1,400 metres deep.

The lower layers of the southern slope are richer in naphtha than the top ones, especially the fifth, sixth and seventh layers away from the axis are rich in naphtha. There is, no doubt, that in addition to the layers already known there must be others below the seventh layer very rich in oil, and to discover them boring operations must by all means be conducted on the southern incline far away from the axis.

Geological observations in the Caucasian mountains where the Grosny strata, as well as those below, are appearing on the surface indicate the existence, besides the seven already known petroleum layers, of new and deeper petroleum strata.

I presume that the eighth layer will be met with at a depth of 60 to 80 metres below the seventh, and that below the eighth there must be still other petroleum layers.

If, however, a deep hole is bored near the axis it will in no way strike at these deep layers, for the boring will go through the axis and then enter into the bent layers of the northern slope.

The borehole on the southern incline on a sufficient distance from the axis on a deep boring constantly strike new layers.

Of course, boring on the southern incline takes longer as deeper holes are required, and that it is more difficult to stop the inrush of water here, but all these difficulties will be recompensated in abundance by the good results.

Near to the axis the upper layers on many plots are exhausted. The lower layers of the holes near the axis have not yet been touched.

The axis of the anticlinal fold, whilst deeper, moves in a southern direction. Therefore, to strike the crown of the anticline of some deep layer it is necessary to commence the hole on the surface of the southern incline going back to the south for a certain distance, which is to be determined by calculation, dependent from the relief of the locality, the depth of the stratification of the expected layer and the shape of the formation at the given point. The deeper layers will have their higher point of their crown more to the south than the case with the upper layers. The layers that have not yet been touched must at their higher points of the summit produce great fountains. Therefore by commencing a borehole on the southern incline on the surface, one can strike the top part of the crown of the deep layer, and thus get a fountain.

From the above description, it is clear that the value of the Grosny oil field is removed to the southern incline.

In 1905, in my report to the Tersky Section of the Imperial Russian Technical Society, *re* the quantity of naphtha contained in the naphtha beds, I introduced two ways of approximate calculation of the quantity of oil contained in the Grosny oil field. I came to the conclusion then that the quantity of oil contained in each dessatine was about 3,500,000 poods. Since then five years have elapsed, and I see now that that estimate was made too carefully. Some plots have already produced more than 3,500,000 poods per dessatine, and still continue to produce oil. At that time also the importance of the southern incline of the anticlinal was not yet determined, and the lower layers were not yet discovered. It must be now recognised that the plots on the southern slope of the anticlinal must produce a quantity of oil far above 3,500,000 poods per dessatine. For example, one Ermelovsky plot of Akhverdoff Co. produced 70,591,100 poods of oil up to the 1st March, 1910. It is 7,000,000 poods per dessatine.

Naturally all the plots are not equally rich. Other plots may contain less than 7,000,000 poods per dessatine. But with the information we at present possess on the bearing, we can safely admit the primary contents of the Grosny bearing in petroleum amounting to 7,000,000 poods per dessatine. The total area of the Grosny bearing being of 1,600 dessatines, the total amount of petroleum in the Grosny oil field may be taken as amounting to 11,200 million poods. But it is quite possible that the real figure far exceeds the above.

The amount of petroleum in the Baku bearing has been estimated by Konshin and Batzevitz as 16,000 and 20,000 million poods. It thus follows that the store of oil in the Grosny bearing exceeds half of that of the Baku bearing. But at Baku exploitation works are much more developed than at Grosny.

The total amount of petroleum produced on the Grosny oil field up to the 1st of March, 1910, amounted to 540,453,620, being only a small part, about one-twentieth of the primary deposit.

At Baku there is a very great number of oil-producing firms, while at Grosny there are only 12 such firms, and for the last six years this number has not been increased even by a single new firm. Still, notwithstanding this fact, the quantity of oil produced every year is constantly increasing, and in 1909 has reached the figure of 57,000,000 poods, while at the same time at Baku there is to be noticed a decrease in the production.

Undoubtedly Grosny will have a rapid and great development; it has a great future, and Baku will have to give over to Grosny not a small part of its importance.

The chemical composition of Grosny petroleum is a favourable one in commercial respect. Freshly produced oil can yield up to 15 per cent. of benzine. In the average the yield is of 7 per cent. of benzine, 8 to 10 per cent. of illuminating oil, the rest being liquid fuel. Lately, there has been discovered in the west of the Grosny district an oil containing from 5 to 18 per cent. of paraffin scale. Although the production of this paraffin oil amounts to 600,000 poods a month, the extraction of paraffin scale from it has not yet been established.

The Grosny bearing is very rich in petroleum gas, consisting chiefly of methane (CH_4). At present this gas is utilised for heating boilers for gasometers, for heating and illuminating buildings.

The strata of the Grosny bearing are very stable and suitable for boring. On the basis of accurate statistical figures I have come to the conclusion worded in my report, read in 1909, at the Tersky branch of the Imperial Russian Technical Society, "that at Grosny boring of wells is performed on the average by 61 per cent. and deepening of wells by 100 per cent. quicker than in Baku."

Boring and exploitation work is considerably cheaper at Grosny than at Baku. Boring of a well of 200 sagenes, with casings, etc., costs about 40,000 roubles, of a well of 350 sagenes about 100,000 roubles.

All the Grosny plots have to pay a certain rate per pood of oil varying according to plots from 1 to 6 and more copecs; on the majority of the plots the rate is from $1\frac{1}{2}$ to $2\frac{1}{2}$ copecs.

The cost of petroleum at Grosny is made of: per pood rate, say 2 copecs; per pood rate to the Siezd of the Tersky oil producers $\frac{1}{5}$ copec. The producing cost and the cost of pumping on the station Grosny varies from 4 to 10 copecs, in the average 7 copecs; amortisation of wells, etc., 3 copecs. Total $12\frac{1}{5}$ copecs. Thus the production at Grosny becomes profitable with a price for crude at even only 15 copecs per pood. The last five years the prices of crude at Grosny averaged 20 copecs.

The geological study of the bearing as well as a review of the working conditions thus shew that the Grosny oil industry is a solid and healthy industry, and must shew in the future considerable and rapid progress.

SPOUTERS IN THE SURAKHANY FIELD.

The Surakhany spouters are increasing in number in addition to the spouters on the properties of Benkendorff and of the Baku Petroleum Co. The well No. 5 of Messrs. Mirzoeff Bros. started spouting on the 27th of March last from a depth of 1,190 feet. The yield in oil averages from 15,000 to 20,000 poods a day.

On the 11th April another spouter on the field of the Baku Petroleum Co. broke out from a depth of 1,568 feet, producing 200,000 poods a day.

It is now nearly three months since the spouter on the Benkendorff's property broke out, having approximately produced over 5,000,000 poods of petroleum. The yield of oil averaged from the start about 300,000 poods a day. For about a month it kept at the level of 100,000 poods a day, falling finally to 35,000-40,000 poods a day.

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THE BURMAH OIL COMPANY, LIMITED.

. . ANNUAL MEETING OF SHAREHOLDERS . .

The annual meeting of the shareholders of the Burmah Oil Co. was held at Glasgow on Wednesday last, Mr. John T. Cargill, the chairman of the company, presiding.

The report of the directors, which was taken as read, stated that it would be seen from the latter that the net profit, including £31,551 16s. 9d. brought forward from 1908 amounted to £568,627 13s. 1d. From that sum had to be deducted the interim dividends paid on 10th November, 1909—(1) 6 per cent. first preference shares of £1 each—dividend, less tax, £7,093 15s ; (2) 6 per cent. second preference shares of £10 each—dividend, less tax, £21,281 5s ; and (3) ordinary shares—dividend (free of tax), £95,250, or a total of £123,625. The directors proposed that there be placed to general reserve £100,000, thus leaving £345,002 13s. 1d., out of which the directors recommended the following final dividends and bonus for the year 1909, viz. :—

	£	s.	d.	£	s.	d.
(1) On the 6 per cent first preference shares of £1 each—						
7⅕d. per share (equivalent to 6 per cent. per annum from 30th June to 31st December, 1909), amounting, after deducting income tax thereon, to ..	7,062	10	0			
(2) On the 6 per cent. second preference shares of £10 each—						
6s. per share (equivalent to 6 per cent. per annum from 30th June to 31st December, 1909), amounting, after deducting income tax thereon, to ..	21,187	10	0			
(3) On the ordinary shares of £1 each, Numbered 1 to 1,270,000 inclusive—						
(*a*) 1s. 6d. per share (equivalent to 15 per cent. per annum from 30th June to 31st December, 1909), free of income tax, amounting to	95,250	0	0			
(*b*) Bonus of 3s. per share, free of income tax, amounting to..	190,500	0	0			
				314,000	0	0
Leaving to be carried forward				£31,002	13	1

The lower prices for kerosene oil ruling in India during the greater part of the year and the fall in the price of paraffin wax all over the world materially affected the general trading profit.

Depreciation had been fully provided for under all heads. £59,659 19s. 1d. had been written off the refineries account, £101,943 14s. 4d. off the oil wells and field account, £60,000 off the pipe line, and £25,000 off the tankers and tank installations account. £80,000 had also been placed to field reserve account, making a total of £330,000 at the credit of that account, and £25,000 had been added to the insurance fund, bringing it up to £150,000.

On its flotation the Anglo-Persian Oil Co., Ltd., repaid the whole of the money advanced by The Burmah Oil Co. on exploratory operations in Persia, and this enables the directors to take back into profit and loss account the £70,000 written off profits in former years against the possible failure of that enterprise.

The net profit amounts to £568,627 13s. 1d., as compared with £618,551 16s. 9d for 1908, and this enables the directors to recommend the same total distribution to the ordinary shareholders—viz., 30 per cent.—as for 1908.

With the £100,000 recommended to be added to general reserve, the amount at the credit of that account will be £840,000.

Oil has not been struck in paying quantity during the year in any of the new districts under test, but drilling operations are being carried out on a more extended scale than heretofore.

In the oil fields the upper sands have been to a considerable extent exhausted, which has necessitated a largely increased expenditure for drilling more wells, for the increased cost of wells due to their greater depth, and for further purchases of oil sites.

The pipe line continues to work in the most satisfactory manner.

The company's interest in the Anglo-Persian Oil Company is represented by—

(1) Direct holding of 570,000 ordinary shares of £1 each	£570,000	0	0
(2) Holding through The Concessions Syndicate, Ltd., of 379,864 ordinary shares of £1 each	379,864	0	0
	£949,864	0	0

The 570,000 shares are included in investment account at	£125,375	0	0
And the 379,864 shares are taken at the amount of the company's interest in The Concessions Syndicate, viz.	94,966	0	0
	£220,341	0	0

The liquid assets of The Concessions Syndicate are more than sufficient to repay the share capital of that company, so that the 949,864 Anglo-Persian ordinary shares will stand in the company's books at £125,375. The other investments held by the company are valued on a conservative basis.

The directors have for some time had under consideration the capitalisation of a portion of the amount at credit of general reserve, and they have now decided to recommend the shareholders to sanction same. The amount at the credit of general reserve, with the £100,000 now recommended to be added, is £840,000, and it is proposed that, of this amount, £635,000 be distributed by way of bonus, and applied in payment in full of 635,000 ordinary shares of the company. These shares will be allotted *pro rata* to the ordinary shareholders, and will give one bonus share for every two existing shares. It is proposed that the scheme be carried through as at 30th June next, but that the new shares rank for dividend as from 1st January, 1910.

The necessary special meetings to obtain the sanction of the shareholders and increase the capital of the company will shortly be called.

The directors desire it to be clearly understood that this proposed capitalisation is not in anticipation of increased profits in the future—as to which it is not possible to prophesy—but is for the purpose of making the ordinary share capital on which dividends are declared correspond more closely to the amount actually used as permanent capital in the company's business.

As regards the current year, the price of paraffin wax is lower than in 1909, and the year opened with the price of kerosene oil in India on a very low level. Fortunately there has been a substantial advance in prices of kerosene during the last two months, but the result of the year's trading to a large extent depends on the course of prices in India during the remainder of the year.

The directors have to record with deep regret the recent death of their esteemed colleague, Mr. Robert King, who had been a valuable member of the board of this company from its formation, and of the old Burmah Oil Co. for many years previously.

In accordance with the articles of association, the directors retiring at this time by rotation are Mr. M. Tarbett Fleming and Mr. R. W. Adamson, who, being eligible, offer themselves for re-election, and to fill the vacancy caused by Mr. King's death the directors recommend the election of Mr. David W. T. Cargill.

In moving the adoption of the above report, the Chairman said the company had experienced keen competition in Burmah, but within the last two months there had been a substantial rise in prices. Still, the position was one of considerable uncertainty and should those new refining companies send more oil into India than the market was able to absorb, and cut rates with a view to finding an outlet, there would be nothing for their company to do but to follow suit. Their company's pipe line was a complete success and capable of transporting considerably larger quantities that had been estimated. To pump oil of the nature of Burmah crude through 275 miles of pipe at the rate of 18,000,000 gallons a month as they did with only two pumping stations was an engineering feat of which they might well be proud.

It was disappointing, continued the Chairman, not to be able to announce any new discoveries of oil-bearing territory ; but prospecting operations would be carried on with unabated vigour. The increased duty on imported kerosene oils into India would not benefit the Burmah Co. from a pecuniary point of view, as, in order to protect the consumer, the directors had fixed the price at a lower level than in any other Eastern market. With regard to the proposal to capitalise £635,000 of reserve, the directors had gone on the sound basis of conserving a fair proportion of the profits and utilising the same in expanding the business. The directors were of opinion that the time had arrived for capitalising the reserve now permanently invested in the business.

The report was unanimously adopted.

THE OIL SHALE DEPOSITS OF CANADA.

THEIR GEOLOGICALAL POSITION AND CHARACTER.

— By —
Dr. R. W. ELLS,
LLD., F.R.S.C.

A highly important and at the same time interesting survey of the oil shales of New Brunswick and Nova Scotia has recently been completed by Dr. R. W. Ells on behalf of the Department of Mines, in connection with the Geological Survey Branch of the Canadian Government, and the report which is just being issued comes at a very opportune moment, seeing that the great interest which is now being taken in regard to the commercial development of Canada's shale oil deposits.

The report of Dr. Ells has been embodied in booklet form, the first part of which deals with economics, and the second with geology. It is the second part of the publication, however, which is of the greatest interest to our readers, as it is herein that the geological position and character of the deposits of Canada are described at length.

The author, at the outset, records the fact that for more than a half a century the presence of a well defined belt of shale and sandstone of various colours, generally black, brown, and grey, in part highly bituminous, has been recognised in the south-eastern part of the Province of New Brunswick, especially in the counties of Westmorland and Albert, whence the rocks extend west into King's county. From their occurrence and early development in Albert county, they have been for many years known under the name of Albert shales. Rocks very similar in character, and regarded as belonging to the same geological horizon, have been long known in different parts of the adjoining province of Nova Scotia, where they have received the name of Horton series, given by Sir J. W. Dawson many years ago.

In New Brunswick, attention was first especially directed to these shales about 1849, as the result of an examination of the area by Dr. A. Gesner, a local geologist of marked ability, and the author of several valuable reports on the geology and resources of the maritime provinces. In that year—1849—he discovered on Frederick brook, near what is known as Albert mines, a remarkable deposit consisting of a vein or bed of a bright jet-black, shiny mineral, easy of ignition and supposed by some persons to represent the outcrop of a bed of coal. On subsequent careful examination, Dr. Gesner came to the conclusion that the mineral was not a coal in any sense, but a form of mineral pitch, or a hardened or inspissated petroleum which occurred in vein form, cutting the enclosing strata transversely to the bedding instead of occurring as a regularly bedded deposit after the usual manner of coal beds.

For this new mineral the name Albertite was suggested by Dr. James Robb to Sir Charles Lyell, at a time when the true nature of the mineral was still a matter of doubt.

The discovery of this mineral on Frederick brook in 1849 directed attention to the area at once, and in the same year the locality was visited by Dr. James Robb, professor of geology and natural history in the University of New Brunswick at Fredericton.

In 1852 a law suit was commenced involving the ownership of the mineral, which promised when developed to be of so great an economic value. Dr. Gesner, the original discoverer, claimed the mineral, on the ground that it was not a true coal, and, therefore, was exempt from the ordinary Crown Land regulations applicable to that mineral.

At the trial a large amount of evidence was taken by experts with the result that the jury decided in favour of the contention that the mineral was a true coal. It may be added, however, that though Dr. Gesner by this decision lost his personal interest in the property, it has since been abundantly established that the contention advanced by Dr. Robb and himself was correct, namely that it is true asphaltic mineral, occurring in veins, and not as a bed similar to bituminous coal.

As this mineral, known at first as Albert coal and now under the name Albertite, proved on investigation to be of great value, and was mined for nearly thirty years at a large profit, its subsequent history assumes an importance due to its direct association with the shale deposits, though mining operations on this celebrated vein have been discontinued for 25 years. This deposit has often been described, and the property was surveyed and mapped by the Geological Survey in 1876-7, but complete records of the enterprise have never been obtained. Many of these records have been destroyed by fire or otherwise, the principal persons interested have passed away, and no reliable data can now be secured.

It may be said, however, that in each of the years 1865 and 1866 the output of Albertite was 20,500 tons, while the total from 1863 to 1874 amounted to 154,800 tons, and during the entire period of working it was probably not far from 230,000 tons. The price ranged from $15 to $20 per ton, and mining was carried to a depth of nearly 1,300 feet. The length of the vein worked was in a straight line from west to east,' about 2,800 feet. It varied greatly in thickness, was frequently broken and thrown from side to side, sometimes thinning out almost entirely, and again increasing to a thickness of from 15 to nearly 17 feet. In its lower levels it passed into a brecciated mass of shale fragments, closely cemented with Albertite, as was also the case at the extremities, which thinned out until it become unprofitable to continue mining. Several spur veins were found, with other smaller separate veins, but of these none were worked to any considerable extent. The vein did not follow the exact crest of the principal anticline in the shales, which was located in one of the tunnels from near the bottom of the west shaft at a distance of 420 feet north. This anticline was also located at the surface in a couple of brooks where it corresponded in position with that observed in the underground workings. The vein descended almost vertically 1,300 feet to the bottom of the workings, and was followed downward by pits and boreholes to a further depth of about 200 feet, though the brecciated nature of the deposit at this depth rendered its working unprofitable.

(To be concluded.)

LETTERS TO THE EDITOR.

THE INDUSTRIAL APPLICATION OF LIQUID FUEL.

To the Editor of the Petroleum Review.

Sir,—In the many articles and letters that have appeared in the press on the subject of oil and the consumption of astatki, mazout and other crude mineral oils—while every attention has been given to the application of liquid fuel to steam generation in the Navy and mercantile marine—little or no allusion has been made to the importance of the application of the fuel to industrial processes ashore.

In the first place, the writer wishes to avoid overstating the case by advocating the claims of oil fuel—as opposed to coal—for steam generation ashore, where cheap hard fuel can be obtained and consumed, and where the emission of smoke is not of very much account; but there are many cases where liquid fuel can be applied with great and obvious advantages. In thickly populated residential districts, manufacturers are continually coming into contact with local authorities on the question of smoke emission, to avoid which, some of them are compelled to use the very best quality of Welsh steam coal, and it is to boiler installations such as these that—given an efficient burner—oil fuel can be satisfactorily and efficiently applied.

The enormous saving of labour in stoking—for one man can do the work of six in boiler firing—the absence of clinker and furnace refuse, the extreme cleanliness of the installation, the abolition of smoke—all these indubitable improvements - should render the adoption of liquid fuel by many large steam users a certainty in the future.

Where, as is often the case, a manufacturer is under-boilered, owing to shortness of room, by adopting liquid fuel he can increase the output of his existing battery of boilers by at least one-half and thus save putting down an additional boiler at a very heavy capital outlay.

Again, in electrical generating stations there is often the question of what is technically known as "peak load," *e.g.*, a dense black fog comes along and every consumer switches on the light simultaneously; the generating station finds its capacity suddenly taxed to the utmost, but if the boilers were fitted with an auxiliary oil burning plant as a "booster," their evaporative efficiency could be so increased as to easily cope with the emergency.

There are many industries, however, apart from steam raising, in which fuel oil can be employed to great advantage, and it is to this outlet for the product that the writer looks for a great development in the industry.

Nearly seven years ago he started experimenting at these works with liquid fuel for the purpose of melting glass. Only those who are connected with a manufacturing business can realise the costliness of such work, and the number of abortive trials encountered.

The pulling down and re-erection of furnaces, the discouragement of the workmen, the endless drain of capital—almost compelled us to relinquish the idea in despair, besides which we were faced with the problem—now happily solved—of precarious supplies and fluctuating prices. We tried very many burners and systems. When we did not get dense volumes of greasy black smoke, the burners carbonized and had to be taken off and cleaned every hour or so. There was also the question of back firing, the writer himself—as he told the Institute of Mechanical Engineers some time ago—once met with a mishap entailing no more serious consequences than the loss of his moustache.

Despite all these rebuffs we persevered and eventually evolved and patented the "Carbogen" burner, which has now been working for three years with highly satisfactory results. Here in the midst of a thickly populated residential district, we are burning from 20 to 25 tons of fuel oil per week (say, 4,000 to 5,000 gallons), and this with perfect combustion and a consequent total absence of smoke.

The temperatures obtained range from that of a baker's oven or tea drying kiln, to the intense flame required for melting crucible steel. The use of petroleum has none of the well-known disadvantages of producer gas, it is the ideal fuel for all metallurgical and ceramic processes requiring high temperatures with absolutely pure combustion, and in which dust and dirt are "bête noirs." The temperature can be more easily regulated than with any other fuel, and there is no type of furnace-firing which gives so wide a range of heat, and which is so easily controlled.

The following are a few industries to which the burner has been successfully applied:—

Petroleum distillation crucible steel melting, rotary melting furnaces, art tile glazing kilns, muffles for enamel ware, rivet heating furnaces, electric light filament carbonising, glass melting and annealing, singeing furnaces for "topping" fabrics for dyers of Manchester goods, etc., etc.

There is also, in our opinion, a very big field for liquid fuel in its adaptation to steam road traction. It is impossible in the space of a single letter to point out the many outlets for liquid fuel—its advantages can only be realised by seeing it in actual use.

Sir W. B. Richmond and his fellow enthusiasts in the abatement of the smoke nuisance would be well advised to pay a visit to a manufactory such as ours; he would have ocular proof that the smoke problem has been successfully dealt with.

To all those who are really interested in the future of the petroleum industry, we cordially extend an invitation to come and see liquid fuel consumed on a large commercial scale at these works.

The writer will be pleased to make an appointment to personally explain the system.

There are at present two big distributing companies with extensive facilities for handling oil fuel; one of these—the British Petroleum Co., 22, Fenchurch Street—has erected huge tankage depôts at most of the leading ports, and has issued a pamphlet on the subject which is well worth perusal; the Anglo-America Oil Co. are also dealing with the product on a large scale, and future supplies are well assured.

The outlook is distinctly encouraging, the demand for liquid fuel—given a suitable apparatus for burning it—must of necessity increase by leaps and bounds, and if the exploitation of petroleum is scientifically dealt with, it is likely to be imported in huge and ever-increasing quantities for consumption in the manufactures of this country.

There are other aspects of the freightage, handling and combustion of mineral hydrocarbons upon which we should like to make some comment We trust, however, that as experts dealing with a highly technical subject, we have made this communication interesting to the general body of your readers. Our excuse for writing this letter is the fact that oil is being discussed in financial even more than in technical circles just at present, and we hope that no undue spirit of gambling speculation may retard the steady progress of an industry with a great and ever-increasing vista of prosperity before it.

We are, dear Sirs,
Your obedient servants,
for J. A. Curle, Ltd.,
H. J. Stackard,
Joint Managing Director.

Perseverance Glass Works,
Homer Road, South Hackney, *April 26th*, 1910.

* * *

PRODUCTION OF ENGLISH COMPANIES IN RUSSIA.

Baku Russian Petroleum Co., Ltd.—The production for the week ended April 9th was 143,600 poods; and for the week ended April 16th was 155,740 poods. These figures are exclusive of oil produced from plots leased off.

Russian Petroleum and Liquid Fuel Co., Ltd.—The production for the week ended April 23rd was 133,000 poods, or 2,144 tons; and for the week ended April 30th was 132,000 poods, or 2,128 tons.

Spies Petroleum Co., Ltd.—The production for the week ended April 24th was 333,250 poods, or about 5,375 tons. The total production for the year to April 24th was 4,628,765 poods, or about 74,657 tons. The total production for the corresponding period last year was 3,633,065 poods, or about 58,598 tons. The production for the week ended May 1st was 224,305 poods, or about 3,618 tons. The total production for the year to May 1st was 4,853,070 poods, or about 78,276 tons. The total production for the corresponding period last year was 3,898,845 poods, or about 62,884 tons.

The European Petroleum Co., Ltd.—The production for the week ended April 24th was 125,172 poods, or 2,018 tons; and for the week ended May 1st was 116,896 poods, or 1,885 tons.

AMERICAN EXPORTS FOR MARCH.

OFFICIAL STATISTICS.

According to the official publication of the Washington Bureau cf Statistics, the exports of petroleum from America from the various ports during March were as under:—

	1910. Quantities. Gallons.	1909. Quantities. Gallons.
Crude—		
Baltimore	—	—
Bostonand Charlestown	—	—
New York	1,286,900	1,565,432
Philadelphia	261,000	2 178,666
Galveston and Sabine	809,881	6,177,265
San Francisco	5,964,000	2,562,000
Totals	8,321,781	12,483,363
Total value for the month, 1909		$498,273
" " " 1910		$206,944
Naphthas—		
Baltimore	2,095	100
Boston and Charlestown	—	—
New York	5,036,234	4,372,152
Philadelphia	859,192	1,760,567
Galveston and Sabine	2,316,616	4,100
San Francisco	210	5,233
Totals	8,214,347	6,142,152
Total value for the month, 1909		$651,054
" " " 1910		$583,522
Illuminating—		
Baltimore	1,814,962	—
Boston and Charlestown	13,043	3,750
New York	59,689,828	58,664,919
Philadelphia	20,062,848	27,875,770
Galveston and Sabine	5,294,179	6,664,899
San Francisco	3,076,505	4,602,906
Totals	89,951,365	97,812,244
Total value for the month, 1909		$6,345,843
" " " 1910		$5,326,338
Lubricating—		
Baltimore	339,550	464,748
Boston and Charlestown	31,053	13,403
New York	7,918,100	7,966,614
Philadelphia	5,907,863	4,499,341
Galveston and Sabine	63,789	1,037,312
San Francisco	62,720	56,541
Totals	14,323,075	14,037,959
Total value for the month, 1909		$1,686,642
" " " 1910		$1,722,915
Residuum—		
Baltimore	—	—
Boston and Charlestown	10,000	15,000
New York	461,182	35,350
Philadelphia	2,323,379	733,826
Galveston and Sabine	2,964,751	4,136,296
San Francisco	220	1,771
Totals	5,759,532	4,922,243
Total value for the month, 1909		$171,997
" " " 1910		$190,018
Total Mineral Oils—		
Baltimore	2,154,512	464,848
Boston and Charlestown	56,191	32,153
New York	74,392,244	72,604,467
Philadelphia	29,414,282	37,048,170
Galveston and Sabine	11;449,216	18,019,872
San Francisco	9,103,655	7,228,451
Totals	126,570,100	135,397,961
Total value for the month, 1909		$9,353,809
" " " 1910		$8,029,737

BORE HOLES FOR OIL
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CANADIAN OIL AND NATURAL GAS STATISTICS FOR 1909.

The following statistics shew the imports of oil into Canada during 1909, according to the official reports:—

	Imports for Consumption.		
	Quantity, Gallons.	Value Dols.	Duty. Dols.
Coal and kerosene, distilled, purified or refined	10,610,882	785,418	265,167·00
Petroleum, products of n. o. p.	1,473,146	154,834	36,801·00
Crude petroleum, gas, oils other than naphtha, benzine, gasoline lighter than ·8335 but not less than ·775 specific gravity at 60 deg.	3,515	420	52·75
Illuminating oils composed wholly or in part of the products of petroleum, coal shale or lignite, costing more than 30 cents per gallon	3,597	1,818	344·90
Totals	12,091,140	$932,490	$302,365 65
Mineral Oil, Free—			
Carbolic or heavy oil	371,774	$54,320	—
Gasoline under ·725 specific gravity at 60 degrees temperature	5,204,125	467,088	—
Asphaltum for paving purposes	—	2,351	—
Petroleum, crude, fuel and gas oils (·8235 specific gravity or heavier at 60 degrees temperature)	31,194,212	1,321,988	—
Totals	34,170,121	$1,845,747	—

The import of mineral oils for the year are valued at $2,788,237. The duty amounted to $302,366.

This statement shews the oil exports for the year:—

Mineral Oils.

	Home produce Quantity. gallons.	Value.
Coal and kerosene, refined	195	$43·00
Totals	195	$43·00
	Foreign produce. Quantity. gallons.	Value.
Coal and kerosene, refined	—	$4,609·00
Totals	—	$4,609·00
Total value	—	$4,652·00

The production of natural gas since 1892 in Canada has been as under:—

Calendar Year.	Value.	Calendar Year.	Value.
1892	$150,000	1901	$339,476
1893	376,233	1902	195,992
1894	313,754	1903	202,210
1895	423,032	1904	328,376
1896	276,301	1905	379,561
1897	325,875	1906	583,523
1898	322,123	1907	815,032
1899	387,271	1908	1,012,660
1900	417,094	1909	1,200,000

THE PETROLEUM TRADE AT ADRIANOPLE.

Illuminating oil is imported into Adrianople exclusively from Russia. Although of inferior quality it is largely consumed, as electricity or gas are totally unknown. The principal depôt is in Dedeagathl, which receives annually from 5,000 to 8,000 tons. The oil is sent in tins of a weight of 10 kilogrammes each.

PUBLICATION.

“*Petroleum and its Products, Storage and Transport from the Well to the Consumer.*” By Drs. Max and Ernst Albrecht (in German.)

The above is a separate part of the second volume of the Engler-Höfer's Monography on Petroleum, in which the well-known petroleum experts, the Brothers Albrecht, treat the subject of the transport and storage of petroleum and its products. The publication forms a very comprehensive description of a subject which anyone connected with petroleum has the greatest desire to be well acquainted with, as the transport and storage of petroleum and the products obtained from it play an especially important rôle in the petroleum trade. The authors have in the small space of 150 pages collected and sifted valuable material which one is hardly likely to get from any other source, unless devoting several years of studying all the professional literature and periodical publications dealing with petroleum. The first part of the work is written by Dr. Max Albrecht, under the title “Storage and Transport of Petroleum on Land.” In the second part, the construction of reservoirs, tanks and other storage accommodation is treated at length. Special stress is laid on the estimating of costs of construction, and all the methods of measuring the contents of the storage reservoirs and numerous designs fully illustrate the subject. Especially instructive is a map of all the largest installations in Germany and Russia. Besides the reservoirs, the author comprehensively deals with the manufacture of oil-barrels and tins, as well as with the construction of tank wagons and road cars. Then in a separate chapter the author treats the great American pipe lines systems, and gives very interesting details on the pipe lines of the Standard Oil Co., and of other American companies laid through all the American petroleum fields and explaining how these pipe line systems are combined one with another. There is also a short description of the Russian, Roumanian and Galician pipe lines.

The second part of the work deals with the sea transport of petroleum. Here the author first gives an historical sketch of the development of petroleum transport by sea, beginning from the construction of the first tanker up to tremendous tankers of the present day provided with all the modern machinery. A lengthy description of a typical tanker, namely, that of “Tzar Nicolas. II.” is given which has been built in 1895 on the wharf Schichau in Danzig. A special chapter is devoted to liquid fuel installations of the tankers.

THE PETROLEUM IMPORT TRADE OF INDIA.

The statistics of petroleum imports into India during 1909, as compared with the figures for 1908, are as under (in gallons):—

Importing Countries	1909.	1908.
Russia	7,207,322	4,156,690
Roumania	3,919,632	20,907,685
Lund Archipelago	19,839,905	24,250,673
United States	39,547,142	31,431,505
Other Countries	378	461
Total imports	70,514,379	80,747,014
From Burmah	71,698,635	76,767,293
Total	142,213,014	157,514,307
Other products	14,187,332	12,990,989

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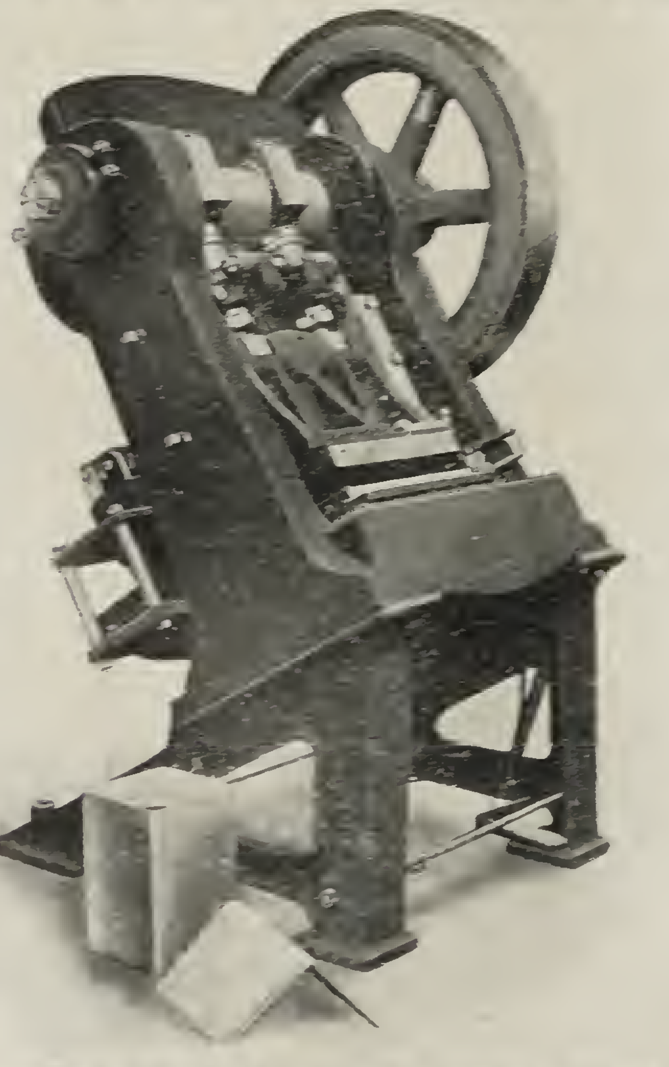

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The American Oil Market.

New York. Week ended April 23rd.

Operations in the Eastern petroleum fields during the week have been of a more material character, a substantial gain in completions and new production being recorded over the results of the former period. In the high grade fields of the Pennsylvania classification development work was generally stimulated, despite the easier course of the crude market. The new production showing of West Virginia was especially favourable. Nearly two-thirds of the State's total for the week was credited to Harrison county, three of the five wells drilled having a daily aggregate of nearly 1,000 barrels. None of the late completions of consequence in Harrison county found the pay in the Shinnston formation. The best well drilled in the county within the last few days was in the Eagle district, the production being increased to 70 barrels an hour after the fourth sand had been penetrated two feet deeper. The well soon began to decline, a characteristic of the fourth sand formation, a late report giving its capacity as 15 barrels an hour. Three miles west of Shinnston, in Clay district, a completion which started at ten barrels an hour from the fourth sand, since slumped to 70 barrels a day. The once famous Shinnston producers now shew comparatively little evidence of their former powers. There are but three wells in the pool with a capacity of more than 100 barrels a day, says the *Oil, Paint and Drug Reporter*, and the entire production is now quite a little below the 3,000 barrel mark. Lincoln and Roane counties continue to lead in new development work in West Virginia. In the latter field, a completion which, when first brought in, was reported a 50-barrel producer, has since increased the output to 112 barrels a day. Other Roane county wells shew a capacity well above the average. Operations of a more or less wildcat character are still a feature in West Virginia. The same degree of keenness marks development work in the deep sand territory of Fairfield and Perry counties, south-eastern Ohio, the best results of the week being scored in the former. One of the completions at Bremen was rated as a probable 150-barrel producer. In the vicinity of Bremen there are 15 wells, exclusive of recent completions, having an aggregate daily production of 1,593 barrels. The output of the field is increasing, and the limits of the producing area have been extended to the south-west. Several noteworthy completions are credited to the Perry county end of the field, one reported to have yielded 200 barrels the first twenty-four hours and another rated as a 145-barrel producer. Washington county is a centre of continued activity in south-eastern Ohio, the best well coming in at the rate of 75 barrels a day. Advices from a California correspondent note increasing concern as to the probabilities of the near future by reason of the tremendous gain in production, which is now placed at considerably in excess of 200,000 barrels a day. The sensational developments in the Sunset-Midway field have occasioned the unlooked-for increase, and the effect is magnified by the fact that the district was the least favourably situated of any in the State as regards transportation. With the proper marketing facilities there seems to be little doubt that the entire output can be taken care of.

Refined and Products.—The local market for refined has followed more or less routine lines during the interval, with trade of lightening proportions, as an incident to the lengthening days. The outlet through export channels has not been appreciably stimulated at the lower schedule lately in effect, advices from foreign quarters noting rather quiet conditions. The export movement during the week was relatively light, 1,187,710 gallons, against 16,857,030 gallons, as previously noted. Chartering for forward shipment has involved 85,000 cases for Australia, July-August. Advices from our Washington correspohdent reported a decrease of 4d. per imperial gallon on petroleum and its products imported into Jamaica.

CLOSING QUOTATIONS

Crude at the Wells

The quotations for oil represented by credit balances were —

	Week ended April 23. 1909	Week ended April 23 1910
Pennsylvania	$1·78	$1·35
North Lima	1·04	0·84
South Lima	0·99	0·79
Indiana	0·99	0·79
Illinois, heavy, below 30 deg. ..	0·60	0·52
Kansas and Indian Ter., 30 deg. and above	0·41	0·38
Heavy	0·28	0·30
Humble, Tex.	0·54	0·75
Saratoga	0·53	0·75
Sour Lake, Tex.	0·53	0·77
Jennings, La.	0·54	0·54
Canadian Oil :—		
Petrolia	1·44	1·24
Oil Springs, less pipeage	1·51	1·31

Refined—For Export

In cents.	Week ended April 23. S.W. 110 test.	W.W. 150 test.
Barrels, cargo .. .. per gal.	7·75	@ 9·25
Philadelphia	7·75	@ 9·25
Bulk, New York	4·25	@ 5·75
Bulk, Philadelphia	4·25	@ 5·75
Cases, New York	10·15	@ 10·65
Cases Philadelphia	10·15	@ 10·65

Refined in Cases—110 Fire Test.

	Week ended April 16. 1910.	April 23. 1910
3,000 to 10,000	10·45	10·30
1,000 to 3,000	10·50	10·35

Refined—Jobbing Lots.

In barrels, pkgs. included.

	Week ended April 16.	April 23
130 fire test, S.W.	11¼	11¼
150 fire test, W.W.	11¾	11¾
In bulk from tanks	8½	8½

Naphtha and Gasolene.

	Week ended April 16.	April 23.
Naphtha, V. M. and P. deod. ..	12	11
Gasolene, 86 deg.	22¾	22¾

Pennsylvanian Oil Runs from April 14th to April 20th, were :—April 14th, 96,622*. April 15th and 16th, 330,179*, April 17th, 22,989; April 18th, 380,079*; April 19th, 100,218; April 20th, 366,617*.

The Deliveries of Pennsylvanian Oil from April 15th to April 21st were :—April 15th, 200,115; April 16th and 17th, 496,530*; April 18th, 159,941; April 19th, 382,980*; April 20th, 238,682*; and April 21st, 290,878*. * Includes Illinois Oil.

Clearances for the Week.

During the week ended April 22nd and since Jan. 1, the clearances of petroleum, in gallons, from the port of New York, were as follows:—

	Week.	Year.	1909.
Refined	7,187,710	170,251,750	173,856,810
Crude	3,750	4,708,750	10,219,475
Naphtha	4,381,650	21,994,770	10,303,910
Residuum ..	2,535,000	4,154,750	179,970

Export Statistics.

The total exports from the port of New York and from the United States have been:—

	Gallons.
From New York, week ended April 22nd ..	9,587,303
Total from New York, from Jan. 1st, 1910 ..	231,811,833
Same period last year	242,029,555
Decrease	10,217,722
From United States, week ended April 22nd	17,599,320
Total from United States since Jan. 1st, 1910	342,785,402
Same period last year	409,583,755
Decrease	66,798,353

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The "Review" Shipping List.

May 6, 1910.

(*The following abbreviations are used in this table:*—L. Left; P. Passed; Arr. Arrived; Sp. Spoken; Tr. Trading.)
Anglo-American Co.'s vessels marked thus (□): the Anglo-Saxon Co.'s tankers thus (*): and Messrs. Lane and Macandrew's thus (†).

Vessel.	From.	For	Latest Date and Position.
ALCHYMIST	Algiers	Selzaete	At Southampton, May 3
ALICE ET ISABELLE (Fr. bq.)	New York	Rouen	In Port, April 18, laid up
AMERICAN	New York	Antwerp	Arr. April 26, in Port, May 3
APPALACHEE □	Philadelphia	Avonmouth	Arr. May 4
APSCHERON	Genoa	Kustendje & Batoum	L. April 30
ARAL	Tyne	New York	Arr. April 25
ARAS	Philadelphia	London	L. April 29
ASHTABULA □	Tientsin	San Francisco	Sd. Taku Bar, April 11
ASTRAKHAN	Philadelphia	Dover	L. April 16
AUGUSTA	Brunsbuttel	Hamburg	In Port, May 3
AUREOLE	Manchester	Tyne	Arr. May 2, in Port, May 3
AZOV	Tyne	Callao	Arr. Mar. 29
BAKU STANDARD	Cardiff	Tyne	In Port, May 3
BALAKANI†	Newport Nws.	London	P. Lizard, May 4
BATOUM	Port Arthur (Texas)	Manchester	L. April 20
BAYONNE	Savona	New York	P. Sagres, April 28
BEACON LIGHT	Penarth	Philadelphia	Sp. April 22, 51 N., 16 W.
BLOOMFIELD	Port Arthur (Texas)	Portland	L. April 24
BORJOM	—	—	Tr. b'tw'n Black Sea & Levant
BRILLIANT	Tyne	Philadelphia	P. Dunnet Head, May 3
BRILLIANT (Br. bq.)	Bombay	Philadelphia	Arr. April 25
BRITISH SUN	Tyne	Emden & Galveston	L. May 3
BROADMAYNE	—	Kirkwall	P. Flambro' Hd., April 26
BUFFALO	Rotterdam	New York	L. May 1
BULLMOUTH*	Soesoe	Samboe	Arr. May 1
BULYSSES*	Tientsin	Hong Kong	L. April 29
BURGERMEISTER PETERSEN	Philadelphia	Flushing	P. Del. Break., April 22
BUYO MARU	Yokohama	Hong Kong	Sd. Kobe, April 5
CADILLAC	Rotterdam	New York	? P. Prawle Pt., April 23
CALCUTTA (B. b.) □	San Francisco	Yokohama	L. Mar. 17
CAMILLO (Late "Joyo Maru")	Port Arthur (Texas) & Thameshaven	Newport	Arr. April 28, in Port, May 4
CAPTAIN A. F. LUCAS	Tampa	New York	Arr. Mar. 26, in Port, April 23
CARDIUM*	Soesoe	Europe (via Cape)	Sd. Singapore, April 30
CARPATHIAN†	Newport Nws	Avonmouth	L. April 26
CAUCASIAN†	Kustendje	Hamburg	Arr. May 3
CHARLOIS	Philadelphia	Amsterdam.	L. April 25
CHESAPEAKE □	Batavia	New York	At St. Vincent (C.V.), April 22
CHESTER	Antwerp	Kustendje	P. Dardenelles, April 29
CHEYENNE	New York	Savona	L. April 20
CITY OF EVERETT	Boston	New York	Arr. April 2, in Port, April 16
CIUDAD DE REUS	Batoum	Rouen	P. Sagres, April 29
CLAM*	Balekpappan	Palembang	L. April 23
CLEARFIELD	Rouen	Tyne	Arr. Mar. 2, in Port, May 3
CONCH*	New York	Bombay	Sd. Port Natal, April 24
CONRAD MOHR	Philadelphia	Bergen	Arr. April 30
COWRIE*	Samboe	Shanghai	Arr. April 30
CUYAHOGA □	Bengkalis	U.K.	Sd. Sabang, April 15
CYMBELINE	New York	London	Sp. April 23, 41 N., 67 W.
CZAR NICOLAI II.	Hamburg	Batoum	P. Gibraltar, April 26
DAGHESTAN	London	Thameshaven & Tyne	At Thameshaven, May 4
DAKOTAH □	Moji	San Francisco	Arr. April 17, in Port, April 21
DANUBIAN†	Amsterdam	Port Arthur (Texas)	P. Dover, May 5
DELAWARE □	Liverpool	New York	P. O. Hd. Kinsale, April 28
DERBENT	Batoum	Antwerp	P. Constant'ple, April 30
DEUTSCHLAND	Rotterdam	New York	Sp. April 24, 50 N., 9 W.
DIAMANT	Hamburg	Philadelphia	P. Lizard, May 2
EDWARD DAWSON	Hull	Antilla	P. Prawle Pt., April 10
EL LOBO	Payta	San Francisco	Arr. April 20, in Port, April 21
ELAX*	Hankow	Palembang	L. April 28
ELISE MARIE	Philadelphia	Flushing	L. April 23
ENERGIE	Philadelphia	Bremerhaven	P. Dover, May 3
ERIVAN	Tyne	Batoum	L. April 24
EUPLECTELA*	Freshwater	Suez	L. May 1
EXCELSIOR	Alexandria	New York	Arr. May 2
FRANCE MARIE (French bq.)	Santander	Marseilles	In Port, May 3
GEESTEMUNDE	New York	Swinemunde	L. April 28
GENESSE □	New York	Vera Cruz	Arr. April 21
GEORGIAN PRINCE	Vallo	Tyne	In Port, May 3
GOLDMOUTH*	Tyne	Aroe Bay	P. Beachy Head, April 17
GUTHEIL	Philadelphia	Havana	P. Del. Break., April 21
H. C. HENRY	Tees	Seattle	Sd. Monte Video, Mar. 13
HAINAUT (Du. sh.)	Antwerp	New York	Off the Wight, May 3
HARRY WADSWORTH	Hull	New Orleans	Arr. May 1
HELIOS	Philadelphia	Nordenhamn	P. Del. Break., April 23
HERMIONE	Sabang	Balekpappan	L. May 2
HESPERUS	New York	Hamburg	Arr. May 1, in Port, May 3
HOTHAM NEWTON	Hull	Batoum	P. Bonzarea, April 25
HYRCANIA	London	Batoum	P. Dover, April 30
IOANNIS COUTZIS	Batoum	Copenhagen	Cld. Constant'ple, April 26
IROQUOIS □ (towing barge Navahoe)	New York	London	120 miles W. of Lizard, May 4
J. A. CHANSLOR	Newport Nws.	San Francisco	Sp. Mar. 28, 1,328 miles S.E. of Sandy Hook
J. B. AUG. KESSLER	Rotterdam	Kustendje	Off Ushant, April 26
JAMES BRAND	Portland (Dorset)	Tyne	In Port, May 3
JULES HENRI (French bq.)	Marseilles	New York	P. Gibraltar, April 18
KIYO MARU	Kobe	Salina Cruz	Sd. Honolulu, Mar. 31
KURA	Barry	Kustendje	P. Barry Island, April 30
LA CAMPINE	Philadelphia	Antwerp	P. Del. Break., April 25
LA FLANDRE	Ghent	Antwerp	In Port, May 3
LA HESBAYE	Antwerp	Baltimore	Arr. April 28
LACKAWANNA □	Manchester	Philadelphia	Arr. April 25
LE COQ†	Bordeaux	New York	P. Lacoubre, May 5
LOUTSCH	Novorossisk	Libau	Cld. Constant'ple, April 29
LUCERNA	Tyne	Novorossisk	Arr. and in Port, May 3
LUCIGEN	Trial Trip	Tyne	Arr. and in Port, May 3, laid up
LUCILINE†	Marseilles	Kustendje	L. April 29
LUMEN	Rouen	Tyne	Arr. April 25, in Port, May 3
LUTETIAN†	Novorossisk	Havre & Rouen	P. Ushant, May 4
LUX†	New York	Alicante	L. April 28
MANHATTAN	Newport N'ws	San Francisco	In James River, April 18

Vessel.	From.	For.	Latest Date and Position.
MANNHEIM	Philadelphia	Hamburg	Arr. May 1, in Port, May 3
MARGARETHA	New York	Genoa	Arr. May 2
METEOR	Vladivostock	Hamburg	Arr. April 27, in in Port, May 3
MEXICAN PRINCE	Tyne	Havana	P. Dover, April 13
MINA BREA	Caleta Buena	Callao	Arr. and in Port, Mar. 29
MINHLA	Chittagong	Rangoon	L. April 9
MIRA	Calais	Blyth	In Port, May 4, laid up
MUREX*	Hong Kong	Balekpappan	Arr. April 29
NARRAGANSETT	London	New York	In Wireless Com., May 1, 1.15 a.m.
NEW YORK □	Rotterdam	New York	Off the Wight, April 24
NIAGARA	Hamburg	New York	Arr. May 3
OBERON	P. San Luis	Panama	L. April 20
OCEAN	Antwerp	Rotterdam	Arr. April 27, in Port, May 3
OILFIELD	Rouen	Tyne	In Port, May 3
ORIFLAMME†	Tyne	Kustendje	P. Dover, May 3
OTTAWA □	Avonmouth	Sunderland	L May 5
OURAL	Antwerp	Batoum	Off Ushant, May 1
PATELLA*	San Francisco	Hong Kong & Saigon	At Hong Kong about May 4
PAUL PAIX	Hull	New York	Arr. April 27
PAULA	Philadelphia	Swinemunde	P. Del. Break., April 14
PECTAN	Tocopilla	San Francisco	Arr. April 19, in Port, April 21
PENNOIL	Philadelphia	Rotterdam	Arr. May 3
PETROLEINE	Blyth	Philadelphia	P. Dunnet Head, April 27
PHOEBUS	Hamburg	New York	P. Dungeness, April 23
PINNA†	Hamburg	Hull	Arr. April 26
POTOMAC □	Philadelphia	Dublin	P. Del. Break., April 24
PROGRESSO ARGENTINA (Ar. bq.)	Port Arthur (Texas)	Buenos Ayres	Arr. Dec. 10, dismantled
PROMETHEUS	Rotterdam	New York	Off the Wight, April 21
PRUDENTIA	Tees	Hull	Arr. May 5
PURELIGHT	Hamburg	Philadelphia	Sd. Tyne, April 24
QUEVILLY (Fr. bq.)	Rouen	Havre	In Port, May 2
RENDOVA (Br. bq.)	Sydney	Liverpool	L. May 2
RION	Foynes	Newport	Arr. April 26, in Port, May 4
ROCK LIGHT†	Middlesbro'	Sulina & Braila	P. Ushant, May 1
ROMANY*	Samboe	Barrow	At Suez, April 27
ROTTERDAM	New York & Amsterdam	Rotterdam	Arr. May 1, in Port, May 3
ROUMANIAN†	London	Port Arthur (Texas)	P. Lizard, April 30
RUSSIAN PRINCE	Cienfuegos	Avonmouth	Arr. Ap il 30, in Port, May 3
SALAHADJI*	Samboe	Balekpappan	L. May 3
SAN ANTONIO	London & Southampton	Puerto Mexico	Arr. and Sd. April 22, Philadelphia
SAN IGNACIO DE LOYOLA (Sp. bq.)	New York	Pasages	Arr. April 19
SANTA MARIA	Honolulu	Kahului	L. April 7
SANTA RITA	San Francisco	Kahului	L. April 18
SARANAC □	Philadelphia	Calcutta	Sd. Port Natal, April 17
SAXOLEINE	Tyne	Kustendje	Off Ushant, May 3
SEMINOLE □	Monte Christi	New York	Arr. April 21, in Port, April 23
SERVIAN†	Manchester	Philadelphia	P. Browhead, April 28
SIRIUS (Ger.)	Hamburg	Philadelphia	Sp. April 26, 48 N., 27 W.
SNOWFLAKE	Sulina	Rouen	In Havre Rds., May 3
SOYO MARU	Lobitos	Yokohama	Arr. Feb. 6, in Port, Mar. 16
SPONDILUS*	Tyne	Singapore	P. Perim, April 25
STANDARD	Hamburg	Philadelphia	Off the Wight, April 24
STROMBUS*	Samboe	Channel	L. April 24
SULTAN VAN LANGKAT*	Swatow	Palembang	L. April 26
SUNLIGHT (Br. bq.)	Macoris	Boston	Arr. April 25
SURAM	Blyth	Batoum	P. Gibraltar, April 22
SUWANEE □	Cardenas	New York	Arr. April 21, in Port, April 23
SVIET	Marseilles	Novorossisk	Cld. Constant'ple, Mar. 30
TAMARAC □	London	New York	Arr. May 1
TELENA*	Tyne	Philadelphia	P. Beachy Head, May 4
TEREK†	Kustendje	Hull & Sunderland	P. Pera, May 1
TEXAS	Smyrna	Lemnos	Sd. Mitylene, April 16
TIFLIS	Tyne	Philadelphia	P. Dunnet Head, April 25
TIOGA □	Kustendje	Liverpool	In Port, May 4
TONAWANDA □	London	Jacksonville	P. Scilly, April 22
TRINCULO	San Francisco	Tocopilla	At Port San Luis, Mar. 18
TROCAS*	Shanghai & Bremerhaven	Hamburg	Arr. May 3
TUSCARORA	Singapore	Karatzu	Arr. April 11
VEDRA	Antwerp	Batoum	L. May 4
VILLE DE DIEPPE (Nor. bq.)	Rouen	Liverpool	In Port, April 27, sold U.K.
VOLUTE*	Balekpappan	Hankow	L. April 30
WASHINGTON	Baltimore	Shanghai	At Colombo abt. April 27
WEEHAWKEN	Kustendje	Barrow	Arr. April 30 and Sd. May 3 R'dam
WILLKOMMEN	Stettin & Tyne	Philadelphia	P. Dunnet Head, May 4
WINNEBAGO	Calcutta	San Francisco	L. April 16

Latest Market Intelligence.

LONDON OIL MARKET.

Supplied by Messrs. Benjamin & Gee, 31, St. Mary Axe, E.C.

May 6th, 1910.

There are no alterations to report in the price of Refined Petroleum, which have been unaltered since June last. The following are the current quotations:—Russian, 5¾d.; Roumanian, 7d.; American, 6d.-6¼d.; Water White, 7d.-7¼d.

LUBRICATING OILS

are unchanged as follows:—

American pale, £6 10s. to £9 10s.
American dark cylinder, from £7 12s. 6d.
American filtered cylinder, from £10 12s. 6d.
No. 1 Russian, for Spot, £8.

TURPENTINE.

American Turpentine has been as high as 44s., but is now quoted for Spot 43s., June 42s., July-December 39s. 6d.

LIVERPOOL OIL MARKET.

May 5th.

Refined oils are quiet, and sellers quote 6d., for Russian, Galician or Roumanian; and 6½d. to 7d. per gallon for American.

LATEST AMERICAN PRICES.

New York, May 5th.

Refined, in cases, is steady at 10·15; Standard White, 7·75; Credit balances, 1·35.

Philadelphia, May 5th.

Standard White is now quoted at 7·75.

GERMANY.

Hamburg, May 3rd.

The petroleum market is without any change. American, ·800–6·30 marks; Pennsylvanian, 6·40 marks; Galician, 6·30 marks. Russian and Roumanian not on the market.

RUSSIA.

Baku, May 2nd.

The market is somewhat lower. Crude oil is quoted at 14¾-15 copecs per pood spot. Mazout 15-15¾ copecs.

BELGIUM.

Antwerp, May 3rd.

The petroleum market is without change. Price of Standard White, spot, 20·50 francs per 100 kilos.

ROUMANIA.

May 2nd.

	Francs.
Crude oil from different fields, including pipe line charges, per 100 kgs.	3·50–3·60
Refined oil, exclusive of taxes, ex. refinery	8·10
Residuals in tank waggons, at refinery	3·50–3·60
Paraffin	110–120
Prices for Export.	
Refined oil, f.o.b., per 100 kgs.	6·00
Benzine, sp. gr. 0·710–0·715, f.o.b.	16–17
„ sp. gr. 0·715–0·720 „	14·50–15·50
„ sp. gr. 0·730–0·740 „	10–11
„ sp. gr. 0·745–0.755 „	9–10
Lubricating, horticultural	33
„ prime	36
„ extra	42
„ Royal, "Steaua Romana"	46
Imperial "Aurora"	46
Vacuum-Ideal "Vega"	52

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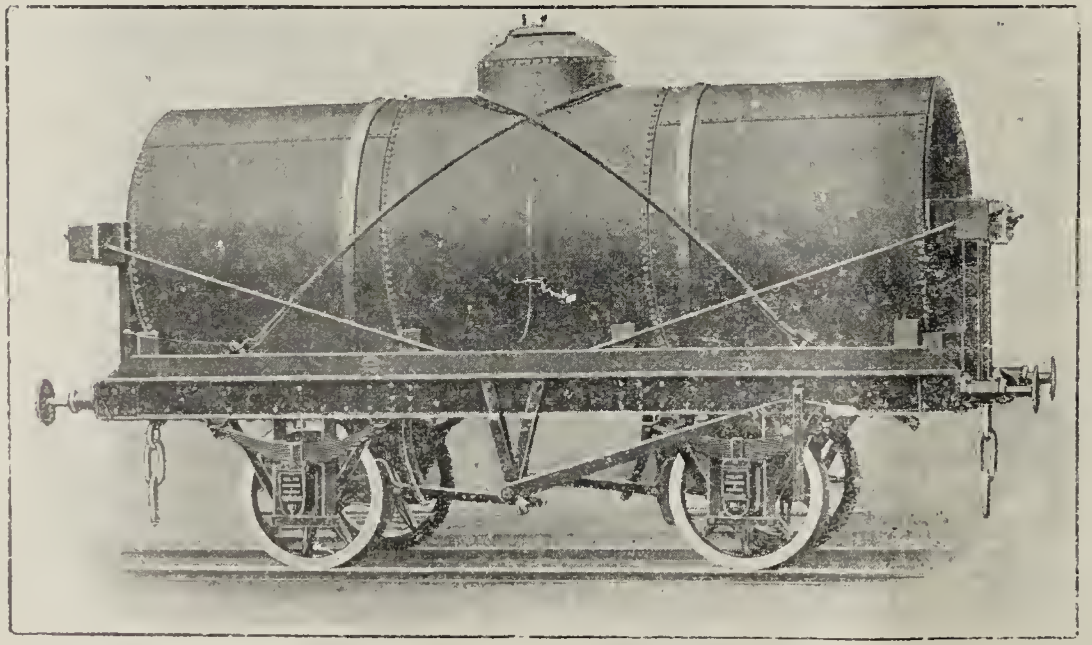
IMPORTS of PETROLEUM into UNITED KINGDOM

Specially prepared for this Journal by the Custom House.

FOR THE WEEK ENDED APRIL 25TH, 1910—

Date.	Port and Importers.	Description.	No. of Gals.	Port Whence.
April	LONDON—			
19	Port of London Authority ..	Lub.	4,440	Hamburg
19	B. Jacobs and Sons.. ..	"	5,600	"
19	W. F. Watt	"	2,000	"
20	T. H. Lee	Lub. Gr.	580	"
20	British Pet. Co. (Roumanian)	Lamp	1,750,120	Pt. Arthur
21	Wilkins, Campbell and Co ..	Lub. Gr.	480	Antwerp
22	J. Harrison	"	1,240	"
22	Page, Son and East ..	Lub.	280	"
23	Port of London Authority ..	Lamp	10,000	Hamburg
23	Anglo-American Oil Co. ..	"	210	New York
23	,, (Narragansett)	"	2,858,070	"
25	Page, Son and East ..	Lub. Oil and Gr.	280	Antwerp
25	Union Lighterage Co. ..	Lub.	2,400	"
25	British and Foreign Wharf...	"	560	"
25	J. Harrison, Ltd.	"	130	"
25	A. Brown and Co	"	560	Hamburg
25	Mordaunt Bros	"	10,000	,,
25	Scott's Wharf	"	3,200	New York
25	British Monogram Oil Co ..	"	4,100	"
25	American Express Co ..	"	40	,,
25	Argo Steamship Co. ..	"	40	Bremen
	LIVERPOOL—			
19	C. C. Wakefield and Co ..	Lub. Gr.	300	Antwerp
20	Ismay, Imrie and Co. ..	Lub.	1,880	New York
20	Vacuum Oil Co.	"	27,480	,,
20	,, ...	L. Resid.	12,000	,,
20	G. B. Taylor	Lub.	41,120	"
20	Valvoline Oil Co.	"	21,730	"
20	W. W. Jones, Dooly and Co.	Lub. Gr.	200	"
20	Bramwell, Fern and Co. ..	Lub.	770	Philadel.
20	Worthington and Boler ..	"	800	"
20	W. Gibson and Sons ..	Lamp	2,050	Boston
21	Bowring Petroleum Co. ..	Lub.	6,450	Philadel.
21	W. B. Dick and Co. ..	"	25,760	"
21	G. B. Taylor	"	18,600	,,
21	E. Harrison and Co. ..	"	2,600	,,
21	Meade-King, Robinson & Co.	"	37,640	,,
21	,, ...	"	2,600	Baltimore
21	,, ..	"	5,200	"
21	A. Hopps and Sons.. ..	"	10,770	"
21	Fellowes, Morton & Clayton	"	1,240	New York
21	Bramwell, Fern and Co.	"	360	,,
21	W. B. Dick and Co. ..	"	16,610	,,
21	Davies, Turner and Co. ..	"	120	Boston
21	Crew, Levick and Co. ..	"	2,080	Hamburg
21	D. Currie and Co.	,,	800	,,
22	Liverpool Warehousing Co.	Lub. Gr.	160	Hamburg
22	Pickfords, Ltd.	Lub. Oil and Paste	410	"
22	Crew, Levick and Co. ..	Lub.	15,450	Philadel.
22	,, ...	M. Colza	5,200	"
23	American Line	Lub.	1,600	"
23	Ismay, Imrie and Co. ..	Lub.	470	New York
25	C. C. Wakefield	Lub. Gr.	300	Antwerp
	BRISTOL—			
20	First Anglo-Russian Oil Co.	,,	340	"
20	Pickfords, Ltd.	Lub.	260	Hamburg
21	,, ..	,,	250	Antwerp
21	W. G. Clarke	M. Colza	160	"
21	Pickfords, Ltd.	Lub. Oil and Gr.	750	Hamburg
22	E. Stock and Sons	Lub.	2,000	,,
22	C. Hill and Sons	"	30,520	New York
22	J. and R. Bush	"	28,240	"
22	Ford and Canning	,,	2,600	"
23	First Anglo-Russian Oil Co.	Lub. Gr.	150	Hamburg
	GRIMSBY—			
19	J. Sutcliffe and Sons ..	,,	1,200	Antwerp
	HARWICH—			
22	Great Eastern Railway ..	Lub. Gr.	320	"
	HULL—			
19	Wilsons and N.E. Co. ..	Lub.	720	Hamburg
20	W. Gilyott and Co... ..	"	44,680	New York
21	T. Wilson, Sons and Co. ..	,,	320	Bergen
21	,, ..	,,	2,200	Stettin
21	Wilsons and N.E. Co. ..	"	2,000	Hamburg
21	,, ..	"	240	Antwerp
	MANCHESTER—			
19	Wilson, Son and Co. ..	"	120	Rotterdam
19	W. Hodgson and Co ..	Lub. Gr.	1,080	New York
19	Diamond Lubricating Co. ..	,,	5,750	"
19	,, ..	Lub.	2,500	"
19	Liverpool Storage Co. ..	,,	32,290	"
19	,, ...	Lub. Gr.	730	"
19	Bramwell, Fern and Co. ..	Lub.	2,080	"
19	G. B. Taylor..	,,	80,560	,,
22	Lamport and Holt	,,	3,270	"
22	British Pet. Co. (Servian) ..	Lamp	1,204,000	Pt. Arthur
25	,, (Aureole) ..	Gas	1,374,000	,,
25	Manchester Liners, Ltd. ..	Lub.	1,200	Philadel.
25	Meade-King, Robinson & Co.	,,	15,200	,,
25	,, ..	M. Colza	10,320	,,
25	Bramwell, Fern and Co. ..	Lub.	870	"
25	C. H. Morton and Son ..	"	2,000	,,
25	G. B. Taylor	,,	64,680	,,
	NEWCASTLE—			
19	Tyne Tees SS. Co.	"	360	Hamburg
	SOUTHAMPTON—			
19	White Star Line	,,	11,940	New York
	DUNDEE—			
19	D. Alexander and Sons ..	"	2,480	Hamburg
21	A. Gray	Lamp	400	"
	GLASGOW—			
20	Donaldson Bros.	Lub.	3,240	Baltimore
25	Anchor Line	,,	23,960	New York

MIDLAND RY-CARRIAGE & WAGON CO., LTD.,



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IMPORTS.—(*Concluded*).

Date. April	Port and Importers	Description.	No. of Galls.	Port Whence.
	Grangemouth—			
19	J. Currie and Co.	Lub. Oil and Paste	1,740	Hamburg
19	W. Graham-Yooll and Co.	Lamp	2,000	,,
19	,,	,,	4,000	,,
	Leith—			
19	W. Graham-Yooll and Co.	,,	2,180	,,
19	J. Currie and Co.	Lub.	280	,,
21	,,	,,	430	,,
21	W. G. Yooll and Co.	Lamp	2,180	,,
21	G. Gibson and Co.	Lub.	80	Antwerp
23	J. Currie and Co.	,,	300	Hamburg
25	G. Gibson and Co.	,,	80	Rotterdam
25	,,	,,	570	Antwerp
	Cork—			
20	Palgrave, Murphy and Co.	,,	40	Hamburg
			7,890,940	
	Deduct to correct—			
	Manchester—			
8/4	Anglo-American Oil Co. (Potomac)	Lamp	17,820	New York
4/4	British Pet. Co. (Aras)	,,	15,750	Kustendje
	Total for the Week		7,857,370	

Note—1/4 Liverpool—Shipments by SS. Derbent at Batoum—Should be described as Bulk, cargo Lubricating.

FOR THE WEEK ENDED 2ND MAY, 1910—

Date.	Port and Importers.	Description.	No. of Galls.	Port Whence.
April	London—			
26	Mordaunt Bros.	Lub.	2,500	New York
26	Anglo-American Oil Co.	,,	20,000	,,
27	Mercantile Lighterage Co.	,,	13,990	,,
27	A. Brown and Co.	,,	4,400	Philadel.
27	,,	,,	560	Hamburg
27	W. F. Watt	,,	4,000	,,
27	Port of London Authority	,,	2,880	,,
28	Mory and Co.	Lub. Gr.	40	Boulogne
28	T. H. Lee	,,	1,370	Hamburg
28	Mordaunt Bros.	Lamp	9,800	,,
28	Page, Son and East	Lub. Gr.	40	Antwerp
28	Lubricating & Fuel Oils, Ld.	Lub.	4,000	Philadel.
28	Port of London Authority	,,	800	New York
29	Livett Frank and Son, Ltd.	,,	800	,,
29	Schlieman's Oil Co.	,,	1,500	Hamburg
29	,,	Lub.Gr.	2,000	,,
29	British and Foreign Wharf	Lub.	50	Antwerp
30	T. H. Lee	Lub. Gr.	120	Hamburg
30	H. Johnston aud Sons	Lub.	1,000	,,
30	W. F. Watt	,,	2,400	,,
30	,,	,,	6,000	,,
30	Lub. and Fuel Oils Co. (Daghestan)	,,	583,350	Batoum
30	,, ,,	,,	12,500	,,
May				
2	T. H. Lee	,,	80	Hamburg
2	Fielder, Hickman and Co.	,,	9,400	New York
2	,,	Lub. Gr.	200	,,
2	Page, Son and East	Lub. Oil and Gr.	400	Antwerp
2	British and Foreign Wharf.	Lub.	480	,,
2	A. Brown and Co.	Lamp	4,000	Philadel.
2	Scott's Wharf	Lub.	2,000	New York
2	British Monogram Oil Co.	,,	410	,,
2	W. H. J. Alexander	,,	2,670	Philadel.
2	British Pet. Co. (Balakani)	Gas	822,000	Pt. Arthur
2	,, ,,	Fuel	462,000	,,
April	Liverpool—			
26	J. T. Fletcher and Co.	Lub.	540	Antwerp
26	Huxley and Co.	,,	120	,,
26	Ismay, Imrle and Co.	,,	1,000	New York
27	G. B. Taylor	,,	45,360	,,
27	C. W. Field and Co.	,,	300	Antwerp
28	Vacuum Oil Co.	,,	4,400	New York
28	,,	,,	120	Hamburg
29	D. Currie and Co.	Lub. Gr.	320	,,
29	Meade-King, Robinson & Co. (Derbent)	Lub.	28,670	Batoum
29	,, ,,	L.Resid.	1,920	,,
29	Vacuum Oil Co.	Lub. Gr.	1,810	Genoa
30	A. Hopps and Sons	L.Resid.	5,880	Newp't Nws.
May				
2	D. Currie and Co.	Lub.	480	Hamburg
2	Liverpool Warehousing Co.	Lub. Gr.	240	,,
2	W. F. Walker and Co.	Lub	140	Antwerp
April	Bristol—			
9	Anglo-Bosphorus Oil Co.	Lub.	4,540	Hamburg
29	H. Matthews and Co.	Lub. Gr.	150	Antwerp
29	Colhurst and Harding	Lub.	3,370	Hamburg
29	F. Barnard	,,	10,400	,,
May				
2	E. Stock and Sons	,,	240	,,
2	Pickfords, Ltd.	Lub. Oil and Gr.	850	,,
	Gloucester—			
30	Bristol Steam Nav. Co.	Lub.	1,400	,,
	Grimsby—			
26	J. Sutcliffe and Son	,,	240	,,
26	,,	,,	130	Antwerp
29	,,	,,	480	,,
29	,,	,,	80	,,
29	,,	,,	120	Hamburg
	Hull—			
28	T. Wilson, Sons and Co.	,,	240	Riga
28	Wilsons and N.E.	,,	6,120	Hamburg
28	,,	,,	1,850	,,
28	G. Hardy and Co.	,,	270	,,
28	T. Wilson Sons and Co.	,,	41,160	New York
	Manchester—			
26	Crew, Levick and Co.	,,	13,600	Philadel.
26	,,	M.Colza	4,160	,,
26	Worthington and Boler	Lub.	1,050	,,
28	D. Currie and Co.	Lub. Gr.	480	Hamburg
28	J. T. Fletcher and Co.	Lub.	40	Antwerp
May				
2	Anglo-American Oil Co. (Ottawa)	Gas	411,420	New York
2	Meade-King, Robinson & Co.	Lub.	2,600	,,
2	Liverpool Storage Co.	,,	25,710	,,
2	Bramwell, Fern and Co.	,,	1,030	,,
	Newcastle—			
26	Tyne Tees Steamship Co.	Lamp	2,000	Hamburg
26	,,	Lub.	800	Antwerp
	Southampton—			
26	P. E. Curry	,,	4,930	New York
	Swansea—			
30	Burgess and Co.	L.Paste	260	Hamburg
	Aberdeen—			
28	R. C. Reid and Co.	Lub.	3,600	,,
	Glasgow—			
27	Clyde Shipping Co.	,,	240	Antwerp
	Grangemouth—			
28	J. Currie and Co.	,,	2,680	Hamburg
28	W. Graham-Yooll and Co.	Lamp	2,000	,,
28	,,	,,	2,000	,,
	Leith—			
29	W. G. Yooll and Co.	,,	6,540	,,
29	G. Gibson and Co.	Lub.	920	Antwerp
	Dublin—			
27	Palgrave, Murphy and Co.	,,	40	Hamburg
			2,626,880	
	Deduct to correct—			
	London—			
26/3	Mordaunt Bros.	,,	2,700	New York
14/3	Anglo-American Oil Co.	,,	60,400	Philadel.
30/3	Port of London Authority	,,	4,650	Hamburg
14/3	Snowden, Sons and Co., Ltd.	,,	2,740	Philadel.
	Belfast—			
22/3	Anglo-American Oil Co. (Appalachee)	Lamp	8,260	New York
	Manchester—			
16	British Pet. Co. (Rocklight)	Fuel	1,880	Pt. Arthur
	Total for the Week		2,546,240	
	Total for the Fortnight		10,403,610	

◆

The Steaua Romana.—An extraordinary general meeting of the shareholders of this company, held on the 30th of last month, approved of the decision of the directors to raise the capital from 30,000,000 to 50,000,000 francs, by issuing 40,000 new shares of 500 francs each. At the moment only 20,000 shares are to be issued and taken over by the Deutsche Petroleum A.G. at a price of 130 per cent.

The Petroleum Review.

By PAUL DVORKOVITZ.

Vol. XXII. *(New Series.)* May 21st, 1910. No. 477

THE PETROLEUM REVIEW:

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Contributions upon items of interest are always welcomed from subscribers, but in each case these should be accompanied with the name and address of the sender, not necessarily for publication.

Editorial Notes.

May 6th, 1910.

Edward the Peacemaker.

R.I.P.

The Oil Boom. The temporary lull which has overtaken oil investments listed on 'Change, since we last went to press, has caused many to enquire as to the oil boom and its prospects of being of a lasting nature. In reply to these enquiries we feel that it is our duty to give our candid opinion, and this most unhesitatingly is that the present boom is a real one, and consequently bound to be of a durable character. At least everything points to that fact. Some years ago, it will be remembered, we had a semblance of a boom in oil enterprises, for it was at that time that several Anglo-Russian oil enterprises made their appearance. Had things gone well with those several concerns no one knows but that we should have witnessed a great boom in oil long ago. As fate would have it, however—and we are not quite certain that "fate" as we look upon it had very much say in the matter—things went wrong, and the sad result is seen in many directions to this day. Public confidence was certainly very much shaken by the results which several of these companies achieved. For instance, there was the Baku Russian Petroleum Co., which started with such a flourish of trumpets, but very little else; then there was the sister company, which did well at first, yet which was never upon a basis of solidity, while in addition there were a few other concerns, all of which in their operations have been disastrous. And yet in the face of these terrible misfortunes in oil, we see it again popular. But things have fortunately changed, and the present day atmosphere of company promotion is cleared of much that has all along been obnoxious. It is this simple fact, combined with the knowledge that oil is a really sound investment when concerns are managed in a practical way, that brings us to the conclusion that the oil boom has come to stay: there is every reason that it should.

The Scottish Shale Oil Companies. According to latest reports, the several companies engaged in the shale oil industry in Scotland have not made such good results during the last year's operations as were generally anticipated. The reason, however, for this is very obvious. The shrinkage in market values of the products was almost unprecedented, for with the exception of sulphate of ammonia, the prices realised fell far short of those of previous years. There are, of course, periods during which every trade becomes depressed on account of diminishing values, and no exception is the Scottish shale oil trade, which has, we admit, been very hard hit during 1909. The reports of the Broxburn and Oakbank Oil Companies are distinct evidence of this. In regard to the former company, the ordinary dividend is to be cut down from 17½ to 10 per cent., while in the case of the latter it is from 15 to 10 per cent. This may naturally cause some disappointment, but when one remembers the troublous time through which the Scottish shale oil industry has lately been passing, a 10 per cent. dividend is of no mean order. Year by year, considerable advantage is being secured by the several operating companies by means of the introduction of new and more economical methods regarding the shale mining and distillation, and this in itself spells much to the solidity of any concern. Our numerous friends interested in Scottish enterprises will, we hope, not take too seriously to heart the present curtailment of the dividend, which, under the circumstances, has been inevitable.

Putting Its House in Order. A new period of prosperity opens before the Russian Petroleum and Liquid Fuel Co., Ltd., now that it is setting about to put its house in order. The old directors promised us much; they did little, and, as though adding insult to injury, they ignominiously drop into the background without one word to the shareholders. The most pleasurable thought in connection with the whole business is that a new regime is to make a determined effort to put the old house in order—an effort which we sincerely believe will be eminently successful, since the guiding spirit will be Mr. Herbert Allen, who framed so favourable and equitable a reconstruction scheme for the sister company—the Baku Russian Petroleum Co., Ltd. The eloquent speech at last week's meeting of the company's shareholders was evidence in itself that the new blood is not to allow the grass to grow under its feet. Personally we are sorry to see the weak end of that shareholders' "independent" committee still making its stand in the face of the new force which has been brought into being. One long and one strong pull is all that is necessary to resuscitate some of the fortunes of the past, and given that, then we shall see the once successful Russian company again looked upon as a strong and solid enterprise, worthy of the name of being associated with British capital.

An Impetus for California.

The remarkable staying capabilities of the Lakeview gusher in the Californian fields (illustrated in our last issue) proves beyond a doubt that the Californian fields are in a position to shew to the world those spectacular sights associated with the old days of Baku. If ever one doubted the prolific nature of the Californian territories, there is now ample evidence forthcoming to justify the most sanguine expectations regarding future development. As may naturally be expected, the great fountain which is still pouring forth its flood of oil has given a remarkable impetus to the Californian petroleum industry, and it is very satisfactory to find that many of the pure wild-cat attempts to prove new territory are being attended with considerable success. What the western fields have in store, no one can say, but the fact remains that if the present fountain has only been completed with the same sized casing as that used in the Russian territories, it is very probable that even the magnificent spectacular sights associated with the early days of Baku might have been put in the shade.

PRODUCTION OF ENGLISH COMPANIES IN RUSSIA.

Baku Russian Petroleum Co., Ltd.—The production for the week ended April 23rd was 158,200 poods; and for the week ended April 30th was 146,050 poods. These figures are exclusive of oil produced from plots leased off.

Russian Petroleum and Liquid Fuel Co., Ltd.—The production for the week ended May 7th was 137,000 poods, or 2,209 tons; and for the week ended May 14th was 138,000 poods, or 2,225 tons.

Spies Petroleum Co., Ltd.—The production for the week ended May 8th was 322,130 poods, or about 5,196 tons. The total production for the year to May 8th was 5,175,200 poods, or about 83,471 tons. The total production for the corresponding period last year was 4,199,355 poods, or about 67,731 tons. The production for the week ended May 15th was 335,505 poods, or about 5,411 tons. The total production for the year to May 15th was 5,510,705 poods, or about 88,882 tons. The total production for the corresponding period last year was 4,507,045 poods, or about 72,694 tons.

The European Petroleum Co., Ltd.—The production for the week ended May 8th was 115,068 poods, or 1,855 tons; and for the week ended May 15th was 112,924 poods, or 1,820 tons.

THE PRODUCTION IN BAKU DURING MARCH.

The total production in the Baku district during March amounted to 41,287,053 poods, out of which 10 103,400 poods were produced at Bebe-Aibat and the rest on the old areas.

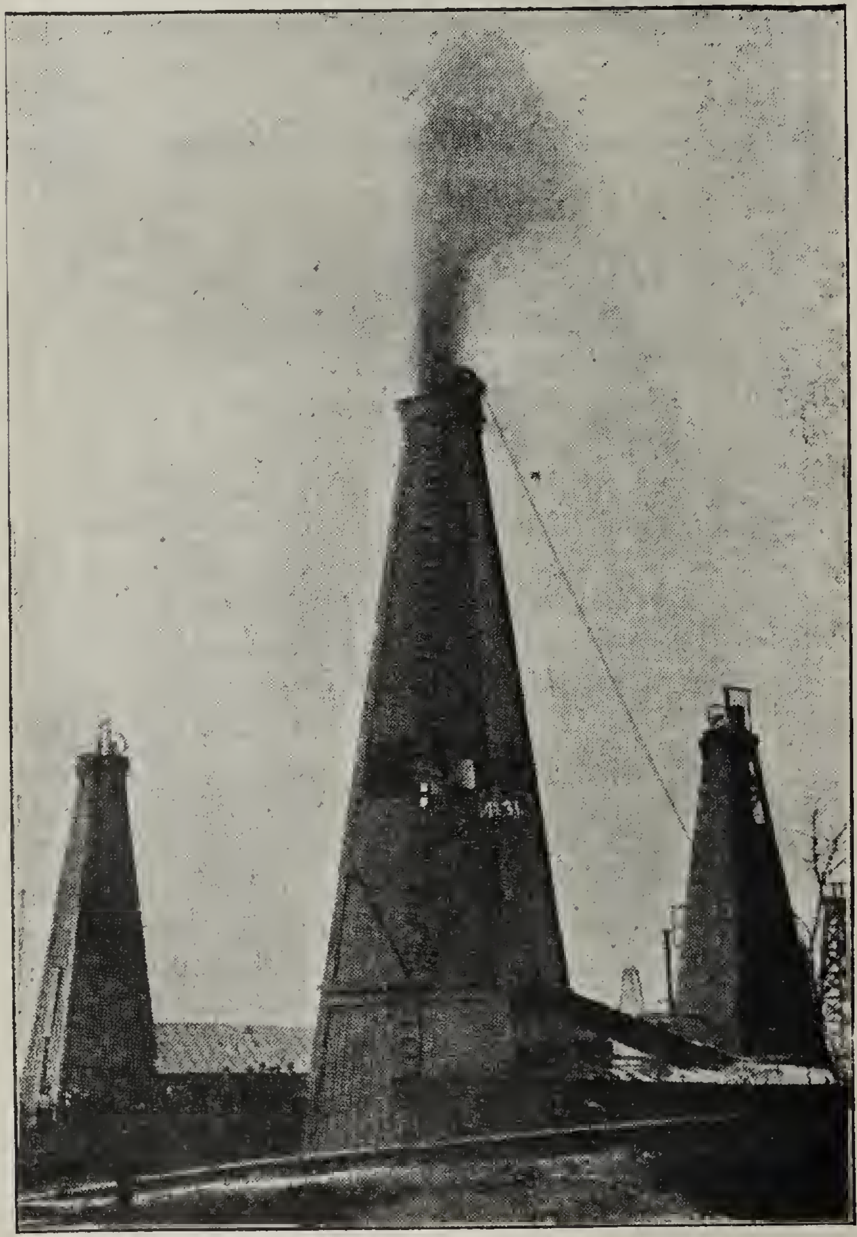
Besides this the three spouters at Surakhany yielded 1,582,652 poods.

The production of the leading firms was as under:—

	Poods.
Nobel Bros.	4,733,029
Caspian and Black Sea Society	2,715,578
Mantascheff and Co.	2,409,057
Caspian Society	2,109,101
Baku Petroleum Co.	1,960,791
Zoubaloff	1,680,000
Mirzoeff Bros.	1,483,500
Pitoeff and Co.	1,258,500
Russian Petroleum Co.	1,093,192
Mussa-Nagieff	1,027,966
Aramazd Co.	1,019,750
Russian Nafta Society	942,800
Moscow-Caucasian Co.	931,689
Kavkaz Co.	772,130
Bibi-Eybat Petroleum Co., Ltd.	700,500
A. S. Melikoff and Co.	686,100
Baku Russian Petroleum Co., Ltd.	650,860
Oleum	592,839
European Petroleum Co., Ltd.	556,500
Assadulaeff	553,980
Moscow-Volga Co.	530,150
Ter-Akopoff Co.	516,800

ANOTHER PROLIFIC SPOUTER IN MORENI.

The Moreni district of Roumania has produced yet another prolific spouter, this latest having been brought in on April 22nd, and is now producing from 800 to 1,000 tons of crude oil daily. The well is No. 3, and is upon the territory owned by the Romano-Americana. During the month April (that is, during the last nine days) the spouter yielded about 20,000 tons of crude oil, valued at approximately 500,000 francs.



An Interview with the Pioneer of Maikop.

MR. SELITRENNIKOFF UPON THE FUTURE OF THE FIELD.

Mr. Selitrennikoff, the well-known pioneer of the oil industry in Maikop, recently had an interesting interview with a representative of *Baku*, the leading daily paper in Baku.

The present moment, said Mr. Selitrennikoff, in the course of conversation, is especially marked in Maikop by the feverish speculation in regard to oil lands. The boundary line for plots under concession is increasing every day. The surface covered by allotments is many times larger than in Baku, but it is difficult to say at the present moment whether those plots will prove oil bearing. The marks for plots stretch as far as Tuapse, near which town there are no less than 40 applications for allotments. The Cossacks play many tricks to seduce people to buy lands shewing oil-bearing properties. It is said that holes are unscrupulously drilled by such enterprising owners on suitable places in the ground and filled up with oil so calculated that the same should shew itself after a lapse of time on flows in a dale or on the river. Speculators do not make long inquiries. They are satisfied as to the new discovery of petroliferous plots, and make and put down the required marking posts. In this way the demarcation line for application and allotments of "oil-bearing" plots constantly grows.

Nevertheless the commercial activity of Maikop continues to increase. This town has already five large banks and several banking establishments. The Apscheron Cossack settlement, where the central establishments of oil concerns, which have already begun oil production are concentrated, will be shortly connected by telegraph with Maikop. The Black Sea Petroleum Co. is constructing a telegraph line which will connect the settlement of Apscheron with Shirvanski, Khadijenski and Neftiannoie where the wells of this concern are situated. The Armavir-Tuapse railway will soon pass through Maikop, but rumours are afloat that the contractors are short of money for carrying the line up to Tuapse. Besides, the projected line is quite unsatisfactory, as it does not pass through the principal properties, where crude oil is produced. Tuapse is the town of the future, for much of the business will probably be concentrated in this town.

A Corner of the Maikop Field, Now the Centre of Attraction.

The Black Sea Co. is laying down an 8-inch pipe line at the cost of 2,500,000 roubles. The chief engineer is Mr. Redwood, and the contractor, Mr. Goukassoff, of Baku. A refinery will be shortly constructed at Tuapse at a cost of not less than 2,000,000 roubles. It is very likely that all the leading concerns will transfer in the near future their chief offices from Maikop and Ekaterinodar to Tuapse. Rumours are current that several English firms have already sold their production in advance at market prices at the time of delivery, and that sales are contracted at an average of two copecs per pood higher than the price obtained for Baku oil.

Few concerns have actually begun work in Maikop.

The Black Sea Co., which owns plots in Neftiannoie, Shirvanski and Khadijenski will have 10 boreholes in the autumn of this year. This firm owns a refinery near the village of Khadijenski.

The Baku-Black Sea Co. has so far now only one borehole. This concern is laying down a pipe line to

Etel or Ekaterinodar, where they have obtained land from the town under favourable conditions, and also ground for a refinery. Amongst other already working leading concerns may be mentioned Spies and Moren and Bering.

It is said that the Russian-Kuban Association, with the American oil king, MacHarvey, the Englishman Berheim, and a Kuban merchant, Rockelly, at the head, with a preliminary capital of 1,200,000 roubles, which will be increased to 50,000,000 roubles, have decided to erect an engineering plant near Ekaterinodar for the supply to the growing needs of the future local industry.

Generally speaking, Mr. Selitrennikoff expects great prospects for the Maikop oil fields. He refutes the current rumours that some of the leading oil producers of Baku try to corner the Maikop production by buying up on a large scale plots without any intention to work same at the present time or in the near future, and says that sufficient provision against such cornering is guaranteed by law, providing that if the owner does not start working his property on the beginning of the second year from the date of allotment all rights on the allotment are forfeited.

The Baku oil producers have quite changed their mind as regards the quality of Maikop oil, says Mr. Selitrennikoff, and begin to interest themselves in the Maikop oil fields. Such firms as Mussa Nagieff, Babajeff, Chorosanoff and others from Baku have acquired property at the Maikop's oil fields.

Finally, Mr. Selitrennikoff is anxious to see more work done on the fields, and assures that enterprise, capital, and labour put wisely in oil producing concerns on the spot would yield large profits.

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ENGLISH PATENTS.

(Specially contributed by Messrs. EDWARD EVANS & Co., Consulting Engineers, Chartered Patent Agents, and Enrolled Patent Attorneys, of the United States, of 27, Chancery Lane, London, W.C.

Application Published in Great Britain.

Apparatus for Producing Air-Gas by Suction from Liquid Hydrocarbons. — Walter Simpson, 446, Union Street, Aberdeen. No. 16400 of 1909.

This relates to an apparatus of the kind described in Application No. 16399 of 1909, and consists in providing a carburettor comprising in combination with a float feed and rotating arms having hemispherical ends, an air collecting chamber, a carburetting chamber connected with the collecting chamber through the medium of a hydraulic or other seal, a density reducing chamber connected with the carburetting chamber and the hydraulic seal in said chamber for transmission of the auxiliary air to the said chamber.

THE TIN PLATE MARKET.

Messrs. Norton, Owen & Co., of 4, Bishopsgate Street Within, London, E.C., report under date May 18th, 1910, as follows: —

The market has been quiet during the past fortnight and prices are unchanged, as below. The makers are for the most part booked well ahead and the exports shew a considerable expansion of trade. We give the official returns at foot.

IC 18¾ × 14	124 sheets	110 lbs.	13/9 to 13/10½	per box.
IC 19¼ × 14	120 ,,	110 ,,	13/9 ,, 13/10½	,,
IC 20 × 10	225 ,,	156 ,,	19/1½ ,, 19/3	,,

F.o.b. Wales. Tin lining and iron hooping extra.

EXPORTS OF TIN PLATES.

	April. 1909. Tons.	April. 1910. Tons.	Jan.-April. 1909. Tons.	Jan.-April. 1910. Tons.
Russia	150	624	3,607	2,118
Germany	2,742	4,191	9,098	13,669
Holland	2,280	4,840	9,156	15,390
Belgium	1,208	1,447	3,459	3,883
France	1,572	1,411	6,251	5,386
Portugal	2,308	1,223	4,311	3,124
United States ..	6,401	9,801	18,974	27,986
British East Indies	4,408	5,760	18,068	18,441
Australia	1,484	2,147	6,763	9,003
Canada	1,233	853	9,286	6,460
Other countries ..	13,245	15,450	47,860	55,176
Total .. Tons	37,031	47,747	136,823	160,636

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THE INDIAN PETROLEUM MARKET.

(Crowded out of page 309.)

Bombay, April 26th.

The petroleum market is firm. The following are the current prices of the Standard Oil Co. of New York:

		Rs.	a.	p.
Snowflake Brand, 150 deg., American	(per case)	6	4	2
White Rose, 150 deg. ,,	,,	6	4	2
Chester Brand, 76 deg. Abel .. .	,,	4	12	2
Devoe's Brilliant	,,	4	12	2
Monkey Brand, 76 deg. Abel	,,	4	6	2
Elephant Brand, 125 deg. (bulk in tins)	(per 2 tins)	3	15	0
Elephant Brand, 125 deg. (bulk without tins) (per 8 Imperial gallons)		3	5	0

The following are the current prices of the Asiatic Petroleum Co., Ltd.:—

		Rs.	a.	p.
Swan Brand, bulk loose..	(per unit)	2	15	0
Swan Brand, new tins	(per pair)	3	9	0
Ship Brand, bulk loose	(per unit)	3	5	0
Ship Brand, new tins	(per pair)	3	15	0
Rising Sun Brand, bulk loose	,,	3	7	0
Rising Sun Brand, new tins	,,	4	1	0
Anchor Cases	(per case)	4	3	0
Silver Light 150 deg. cases, ...	(per case)	5	4	0

The prices of the Burma Oil Co.'s productions are as under: —

		Rs.	a.	p.
Kerosene, Victoria	(per 2 tins)	3	8	0
Kerosene, Victoria	(per 8 gallons)	2	14	0
Kerosene, Chukker	(per 2 tins)	3	15	0
Kerosene, Chukker	(per 8 gallons)	3	5	0
Burmah Wax	per pound)	0	3	0
Burmah Candles	,,	0	5	0

CLASSIFIED IMPORTS INTO UNITED KINGDOM UP TO MAY 16th, 1910.

IN GALLONS.

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Country.	Illuminating.		Lubricating.		Residuals.		Gas Oil. (Solar)		Benzine.		Fuel Oil.		Other Descriptions.		Totals.	
	Since May 2.	From Jan. 1.	Since May 2.	From Jan. 1.	Since May 2.	From Jan. 1.	Since May 2.	From Jan. 1.	Since May 2.	From Jan. 1.	Since May 2.	From Jan. 1.	Since May 2.	From Jan. 1.	Since May 2.	From Jan. 1.
Austria ...	—	—	8,000	57,900	—	—	—	—	—	—	—	—	—	—	8,000	57,900
Belgium ...	—	—	20,520	188,790	—	—	—	—	—	—	—	—	—	2,460	20,520	191,250
Canada ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dutch India.	—	—	—	—	—	—	—	—	—	6,420,660	—	—	—	2,730	—	6,423,390
Germany ...	22 720	396,910	119,900	603,930	—	2,000	—	—	—	—	—	4,840	—	3,200	142,620	1,010 680
Holland ...	—	610	70	1,790	—	—	—	—	—	475,150	—	—	—	113,710	70	591,260
Roumania ...	—	5,430,400	—	659,560	—	134,750	—	290	441,490	1,391,890	—	130	—	—	441,490	7 617,020
Russia ...	—	4,560,630	280 680	3,413,560	—	117,120	—	—	—	700,8 0	—	—	—	240	280,680	8,792,370
U.S.A. ...	6,569,250	36,472,610	2,147,470	15,823,130	—	55,810	3,307,600	21,708,610	2,813,570	10,812,660	—	3,619,180	234,440	396,020	15,072,330	88,888,020
Other Countries	—	480,270	2,670	14,090	—	—	—	—	—	194,970	80	180	—	1,600	2,750	691,110
	6,591,970	47,341,430	2,579,310	20,762,750	—	309,680	3,307,600	21,708,900	3,255,060	19,996,150	80	3,624,330	234,440	519,960	15,968,460	114,263,200

PRELIMINARY REPORT ON THE TARANAKI OIL FIELD OF NEW ZEALAND.

By Dr. J. M. Bell, Director of the Geological Survey.

(Continued from page 254.)

About three-quarters of a mile lower down the Huatoki Valley, on a tributary entering on the right side, other jets of gas appear like those on Petch's farm, and apparently almost equally strong. Here some advantage has been taken of the gas, a roughly made cone being placed over the vent to concentrate the gas and give a constant flame when necessary for boiling water, etc., by the men working in the neighbouring fields.

Still lower down the Huatoki Valley, about half a mile from the right bank of its tributary known locally as the Huatokiti, and on the property of Mr. Grooby, Franklyn Road, there is a very strong ebullition of gas issuing on the edge of a tiny puddle of water in an artificial excavation in tufa. The jets flow from several small cracks occurring in an area about 18 in. square, giving when lighted a strong flame 18 in. or 2 ft. in length, which burns without cessation unless somewhat violently extinguished.

Near the Manganui stream, east of Inglewood, there are several gas-emanations. One, near the Norfolk Road, was not seen by the writer, but it is said to be of considerable dimensions. Somewhat farther south, on the property of Joseph Butler, there occurs on the left bank of the Maungamawheti stream—a tributary of the Manganui—a pronounced outflow of gas, issuing from a crack a few inches long. This jet formerly flowed out on the bank of the stream, but now the main one issues at the inner end of an artificial cut at some 10 ft. from the water's edge, though minor jets appear between this point and the water. The flame which rises when the principal jet is lighted is strong and well defined, burning to a height of about 18 in., with an orange flame, and said formerly to have risen to fully 4 ft. Above these are other ebullitions of gas for about 50 ft. up the stream, and all are fairly strong emanations issuing from consolidated tufa. This gas and that on Grooby's property are probably the most powerful in the district, and it seems remarkable that they are not utilised for household purposes by the neighbouring farmers.

The Taranaki Petroleum Co., which, as seen in a previous paragraph, is operating at Moturoa, has some five bores, numbered from 1 to 5. No. 1 is what is known generally as the Birthday Well. Small but promising quantities of oil were obtained in Nos. 1, 2 and 3. No. 4, the most easterly well, was drilled to a depth of 1,600 ft., but not a trace of oil or gas was found. No. 5 bore was merely started, being sunk to a depth of only 40 ft.

According to the manager, Mr. W. E. Simpson, the depth of No. 1 borehole at the time of the writer's visit (28th October, 1909) stood at 2,345 ft. The bore has yielded small quantities of oil at various times, but at exactly what depths could not be ascertained. When the petroleum-pool was first pierced the oil rose with violent pressure, and was for a short time a gusher, but now it is purely a pumping proposition. The bore is said to be in a very bad state, the case being bent and even parted, and the hole clogged. It is difficult to ascertain exactly what amount of oil has been obtained from the bore altogether, but the quantity obtained by the present company has not been commercially important.

The No. 2 bore, according to the manager, was at a total depth of 2,346 ft. at the time of the writer's visit. Gas is said to have been struck at 1,500 ft., at 2,183 ft., at 2,192 ft., and at 2,205 ft. A stratum containing oil accompanied by large quantities of salt water was pierced at 2,209 ft. in sandstone, and somewhat lower down another flow was encountered. For some time the oil pumped amounted to ten barrels a day, and was running at that rate when the hole was closed down. The daily quantity was, however, very irregular, being sometimes only four barrels, or even less, and some days much more, depending apparently on the gas-pressure. It is very difficult to estimate the quantity of oil so far obtained from the well. The amount, however, is said to have been about 30,000 gallons.

Great difficulty was experienced in No. 2, as well as in the other bores, in shutting off the water, and with caving mud and sand. Six-inch casing was used in the hole to a depth of 2,114 ft., and 5 in. to a depth of 2,246 ft.

No. 3 well was the only hole from which oil was flowing in any quantity at the time of the writer's visit. When closed down for some hours, the pressure of gas was sufficient to bring to the surface a few barrels of oil mixed with water, which flowed with considerable force through a 2 in. pipe. It will be remembered that this No. 3 well is on the site of the No. 4 well of the Samuel Syndicate (the third one sunk by that company), and had by them been put down to a depth of 1,976 ft. The present company have continued the well to a depth of 2,617 ft. (with 6 in. casing to a depth of 2,538 ft., and 5 in. to a depth of 2,540 ft.). A few barrels of oil were obtained at a depth of 2,200 ft., but the greatest flow came from a stratum between 2,568 ft. and 2,574 ft. It is thought that by pumping, this well might be made to yield a flow of at least ten barrels per day. A considerable quantity of oil has been obtained from the well, but unfortunately no estimate of the amount obtained is available.

The Bonithon bore, the deepest drill-hole on the field, was sunk to a depth of 3,004 ft., but without striking either oil or gas, though a strong flow of pure fresh water was encountered.

The Taranaki Oil and Freehold Company's bore stood at 1,389 ft. when visited. The drill-hole is well cased—15½ in. tubing to a depth of 200 ft., 12 in. to a depth of

777 ft., then 9 in. to a depth of 1,287 ft. Traces of oil are said to have been encountered in the hole, but no more.

At the time of inspection the Standard Oil Company's, of New Zealand, bore stood at 2,500 ft., with 8 in. casing to a depth of 2,300 ft. A little oil is said to have been met with at 1,300 ft. and at 2,300 ft. When visited a new casing was being sunk, and had just reached the lower depth at which oil is stated to have been obtained. Thus the writer was able to see a marked impregnation of oil in the comminuted clay brought up by the sand pump. The plant at this drill hole is in excellent shape, and well equipped.

The New Plymouth Petroleum Company's borehole is now closed down. A depth of 1,060 ft. was attained. At that depth it was reported that there were good indications of oil and gas, and that the tools came up dripping with oil.

The Moa Petroleum Company's bore at Inglewood, sunk to a depth of 460 ft., is now closed, and certain of the tools formerly employed are in the bottom of the hole. The site was chosen because of the existence of a fairly strong flow of inflammable gas bubbles issuing in a neighbouring stream. Considerable gas is said to have been encountered in the borehole.

The Inglewood Oil Boring and Prospecting Company's bore was drilled to a depth of 2,500 ft. No oil was encountered, though there is a strong ebullition of gas, which was ignited and burned with a strong flame at the time of inspection. In the hole, 12 in. to 13 in. riveted casing was used to 80 ft., 10 in. to 300 ft., 8 in. to 1,200 ft., and 6 in. to the bottom. The hole is now abandoned and the derrick dismantled, but the machinery and gear still remain, and appear to be in good repair. Records of several of the bores are unobtainable or very incomplete.

So far as known, the gas from the various jets around New Plymouth has not pet been analysed. It is apparently methane (CH_4), but on this point analyses will have to be made before certainty can be reached.

In 1906 a sample, said to have been obtained from the No. 1 borehole of the Taranaki Petroleum Co., was forwarded to the writer by the late Mr. George Fair. This sample contained :—

	Per Cent.
Petroleum spirit below 150° C.	15·0
Water	1·4
Kerosene distilling between 150° and 300° C.	42·0
Lubricating oil	20·3
Paraffin	13·3
Coke	5·0
Loss	3·0
	100·0

About the same time analyses were made by Professor Thomas H. Easterfield of oil from the same well. The results of his tests, and remarks thereon, are given below :—

	Per Cent.
Benzine distilling between 55° and 150° C.	20
Burning oil distilling between 150° and 300° C.	40
Heavy oil for lubricating, 300° and 440° C.	37
Pitch	2
Loss	1
Total	100

"Benzine.—The crude benzine has a specific gravity of ·764, was colourless, and had a pleasant odour. When redistilled it yielded 66 per cent. of naphtha boiling between 58° and 120° C.

"Burning Oil.—The crude burning oil had a slightly yellow colour. When redistilled it yielded water-white kerosene with only a faint bloom. The oil distilling between 150° and 270° had a specific gravity of ·82. Treatment of this fraction with sulphuric acid and alkali scarcely affected the density of the oil, but removed practically the whole of the bloom. The lead-oxide test indicated the absence of sulphur compounds. The kerosene is of greater density than 'White Rose Oil,' and shews a greater tendency to smoke when burnt in American lamps. This defect is also shewn by Russian kerosenes, but is largely overcome by the practical manufacturer.

"Heavy Oil and Paraffin.—The heavy oil sets at the ordinary temperature owing to the deposition of solid paraffin. The maximum amount of paraffin scale which I obtained was equal to 13 per cent. of the crude petroleum. After pressing and re-melting, the scale shewed a melting point of 130° F. The yield of paraffin wax in a properly arranged distillery, fitted for cold filtration, would be greater than in a laboratory experiment. The melting point of wax would also be raised by systematic sweating as carried out by the modern manufacturer.

"Lubricating Oil.—The heavy oil filtered from the wax yielded by the usual acid and alkali treatment a reddish-brown oil of good appearance. The oil is a good lubricant; it was tested upon the crank shaft bearings and in the high pressure cylinder of a stationary engine, and gave complete satisfaction."

The oil of boreholes Nos. 1, 2 and 3 may be described as a heavy oil, setting at ordinary temperatures to the consistency of vaseline (or even harder—depending on the temperature) owing to the large amount of contained paraffin. It is brownish in colour, with an occasional faint green iridescence.

The oil obtained in the well of the Standard Oil Co., of New Zealand, has, so far as known, not yet been analysed. It is apparently not so heavy an oil as that at Moturoa, and is lighter in colour.

Up to the present, success can hardly be said to have been attained in the Taranaki oil field, and the question arises, what are the chances for the future? So many attempts have been made to obtain a payable well at Moturoa that one would naturally feel discouraged for the future were it not that in the writer's opinion a fairly definite reason can be given for the failures. Away from Moturoa drilling can scarcely be said to have yet been prosecuted sufficiently to properly test the field.

There can be no doubt that there are abundant surface indications. Petroleum seepages have been actually seen by the writer only at Moturoa, though they have been reported from the Waitara river and elsewhere. Natural gas, as mentioned in a preceding paragraph, is widespread. Wherever this occurs in quantity there is a strong probability that it has ascended vertically from porous strata below, which very likely—but not certainly—contain the other product of distillation of carbonaceous material—namely, petroleum.

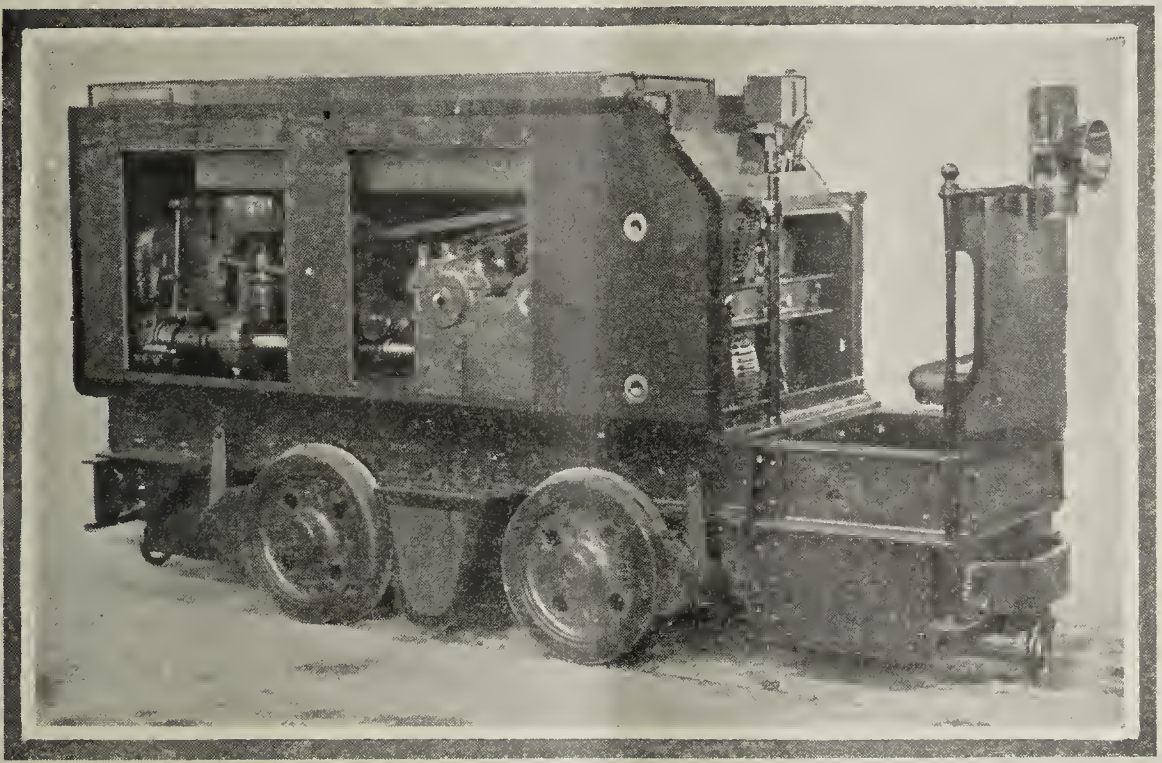
(*To be concluded.*)

Internal Combustion Locomotives in Mines and for Surface Haulage.

For a considerable time, German and Austrian mining companies have been engaged in the work of applying the petrol motor to the work of mine haulage, and there are now upwards of 300 of these engines working in various parts of the globe. These locomotives offer very considerable advantages over other means of transport, especially in localities where coal and water are scarce.

Compared with steam locomotives, the machines have the advantage that they are always ready for use, consume no fuel during stoppages, require one man only for attendance, possess no boiler to require inspection or renewal, and are of considerably less deadweight than a steam locomotive with its tender laden with coal and water.

There are further special circumstances in which it is practically impossible to employ a steam locomotive at all, as, for example, in very dry forest or grassy country, timber yards, paper mills, and the like, where there is the constant danger of fire, and also in mines where naked lights are prohibited, and the purity of the ventilation is essential.



A Specimen of the Engines Used for Mine Work.

Compared with electric locomotives, working with an overhead trolley wire, these machines have the advantage of requiring no central power station, and are independent of any breakdown in same, afford considerable economy in first cost over an electrical installation, and in addition to the haulage system and output is capable of instant expansion by simply employing more locomotives as the output requires.

That this type of locomotive is regarded as perfectly safe may be gauged from the fact that the Austrian, French, and German Government inspectors permit the use of these engines even in "gassy" mines, in which fire-damp is continually present.

One of the most efficient and well designed locomotives of this type is, undoubtedly, the "New Century" Internal Combustion Locomotive, manufactured by Messrs. Ironside, Son and Dyckerhoff, of Water Lane, Great Tower Street, London. This locomotive has the great advantage that owing to its special design and small wheel base, it can be constructed to traverse the most confined mine-roads, around curves of very small radius, without sacrificing its engine power, and it further possesses many important improvements in dealing with the condensation of its exhaust gases when used in underground haulage.

These engines are made in various sizes and powers, from 6 to 40-50 horse-power, and to suit any required dimensions. The loads hauled vary from 15 to 150 tons, at speeds from 4 to 14 miles per hour.

The motor employed is an ordinary single cylinder petrol or benzine motor, revolving at a comparatively small number of revolutions per minute, which means long life and good wearing properties. Ignition of the charge in the cylinder is effected by means of a low tension magneto, and for underground haulage in fiery mines both terminals (in accordance with Austrian mining regulations for coal mines) are insulated and the current conveyed to and from the sparking points in special metallic-woven cables, so that all chance of fraying is obviated. Engine speed is controlled by a governor, which is regulated from the driver's cab to run the engine at any required speed. A horizontal motor has the great advantage of having a low centre of gravity, a point of considerable importance where gauges are narrow and curves sharp. The motor can be run on either petrol, benzine, alcohol, benzol or paraffin, though for underground haulage the use of either benzine or petrol is recommended on account of the better combustion.

The great aim of the manufacturers of the "New Century" locomotive has been to produce a machine which shall be absolutely explosive proof. This result has been arrived at by the total elimination of any form of carburettor (or vessel for vapourising the fuel) outside the cylinder.

By a special construction embodied in the inlet valve, it is impossible for any explosive mixture to be formed anywhere other than in the actual working cylinder, though the air intake pipe is provided with gauze baffles as an additional precaution. The exhaust gases are sprayed in the exhaust box with a small quantity of water, which enables them to be condensed and cause no inconvenience to the workmen, the purity of the air being interfered with to a considerably less degree than by animals and miners' lamps. The cooling system for the cylinder is by thermo-syphon, requiring no circulating pumps or other mechanical devices, and is of generous proportions.

The drive is on all four wheels, and the locomotive moves forward or backward, according to the motion given to a wheel in the driver's cab. The gears which are always in mesh, are engaged by means of clutches, so arranged that their operation is quite "foolproof." Powerful brakes are provided, also a sand-box for the driving wheels. The driving tyres are of best Siemens-Martin steel. As regards fuel consumption, this is rather less than one-tenth of a gallon per actual horse-power hour at full load. As, however, the locomotive is never run at its full load except when starting up, and when ascending inclines it is found that one-half of this consumption is but rarely exceeded in practice, so that a twelve horse-power locomotive consumes during a ten-hour shift about five gallons of fuel. For any special conditions or considerable inclines these locomotives can be fitted with two or more gears, but these are not often necessary, as the momentum of the train will carry it over any short stiff grades with ease.

It is claimed for these little engines that they shew a very considerable saving over rope or chain haulage, while compared to horse haulage they do the same work at a cost of one-third that of horse haulage.

Actual working costs taken by owners over a sufficiently long time shew figures for surface haulage as low as three-fifths of a penny per ton-mile, after allowing twenty per cent. on first cost as interest, sinking fund, depreciation, and repairs. For underground haulage, with inferior tracks and sharp curves, the costs are rarely more than one-twentieth to one-thirtieth of a penny per ton-mile.

Small mining companies, who do not wish to run to the expense of installing an underground haulage system, would, we feel sure, find these engines invaluable, while, where coal and water are scarce, they should prove a most economical means of transport.

OIL IN MENDOZA.

Oil is reported to have been struck at San Rafael, in Mendoza Province, some 700 miles from Buenos Ayres, at a depth of 215 metres, with a flow of 10,000 litres daily. Competent engineers claim that other borings can be made within 40 to 50 metres of this well, and yield similar results. This latest discovered oil field is of the greatest importance to the country, since the oil is pure and constant in its flow.

FRENCH PETROLEUM IMPORTS DURING FEBRUARY.

The imports of petroleum products into France during February amounted to 25,961 tons; this quantity being imported from the following countries:—

	Tons.
Russia	13,847
United States	1,161
Austria	4,012
Roumania	5,778
Other Countries	1,163

The imports during the corresponding month of 1909 amounted to 44,678 tons.

The quantities of various products imported during the month, as compared with those for February, 1909, were as under:—

	1910. Tons.	1909. Tons.
Crude oil	12,069	5,561
Illuminating oil	3,944	25,358
Benzine	4,171	4,411
Lubricating oil	5,797	9,378

The quantities delivered from Custom House for local consumption amounted to:—

	1910. Tons.	1909. Tons.
Crude oil	13,244	12,632
Illuminating oil	4,176	27,589
Benzine	5,987	7,560
Lubricating oil	4,643	6,699
Total	27,870	54,880

GERMAN PETROLEUM IMPORTS DURING FEBRUARY.

The imports of petroleum products into Germany during February amounted to 140,025 tons. The origin of the imported oil was as under (in tons):—

From	Illuminating. Oil.	Lubricating Oil.	Benzine.	Crude and Residuals.
Russia	3,902	4,843	859	—
United States	87,741	13,178	5,257	855
Austria	10,448	1,829	1,131	3,276
Roumania	965	—	1,453	—
Dutch Indies	—	—	2,827	1,082
Other Countries	16	146	123	97
Total	103,072	19,996	11,650	5,307
February, 1909	97,167	12,334	9,961	2,552

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The Petroleum Fields of the United States.

By **Mr. W. G. BURROUGHS**, Formerly Professor of Geology, Kendall College, Oklahoma.

The six great oil provinces of the United States are the Appalachian, Lima-Indiana, Illinois, Mid-Continental, Gulf and California fields. Minor occurrences of petroleum are found in numerous other States.

The origin of the oil in all of these fields is probably the same. Of the many hypotheses advanced, the organic origin of petroleum is based on the soundest geologic facts. The hydrocarbons are found in large quantities, save in one instance, in rocks of sedimentary character. No matter where sediments are deposited, if they inclose animal or vegetable matter, bitumens may be produced. "The presence of water, preferably salt, the exclusion of air and the existence of an impervious protecting stratum of clay seem to be essential conditions toward rendering the transformation possible. Seaweeds, mollusks, crustaceans, fishes, and even microscopic organisms of many kinds may contribute material to the change." This change is accomplished by a process of slow distillation of the organic matter.

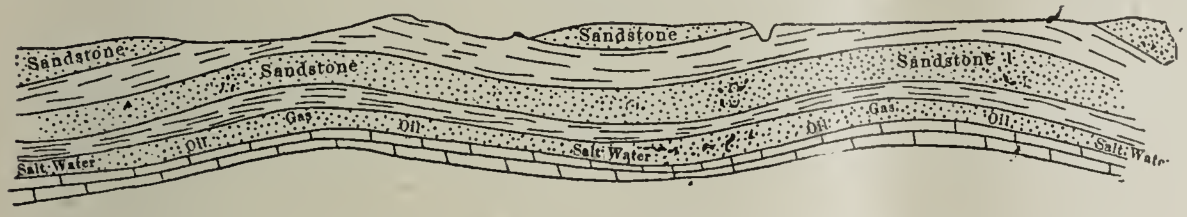

Fig. 1.—Relative Positions of Gas Oil and Salt Water in Folded Strata.

That petroleum varies in different fields is accounted for by the fact that in some regions the original material may have been plant, in other areas animal remains, thus producing hydrocarbons of different character. The different petroleums thus produced in the various fields are those principally paraffins, naphthenes and nitrogenous or sulphuretted oils.

The oil first appears in a state of dissemination, but collectible in economic quantities. It "must gather in proper channels, moved by gravitation or by hydrostatic pressure of waters behind or below it, or by the pressure of dissolved and compressed gases; and accumulate in porous rocks or cavities under layers of impervious material."

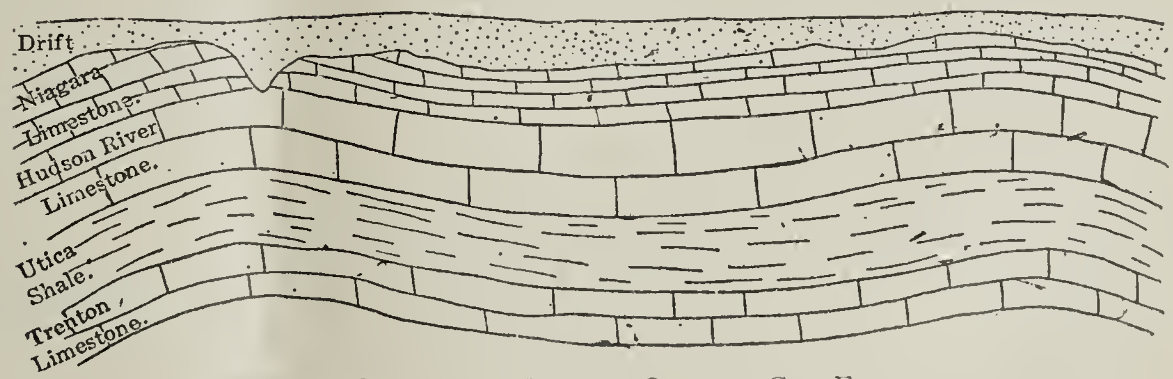

Fig. 2.—Section of Indiana Oil and Gas Fields.

The surface indications of petroleum common to oil fields in general are :—(1) A seepage of oil, which is the best sign of its presence. Care must be taken, however, not to take for oil the iridescent scum of iron oxide which often appears on stagnant water in a country whose soil is strongly coloured with limonite. (2) At shallow depths an asphaltic substance is sometimes found impregnating the soil. (3) Escape of gases, which is the most common of all evidences. To distinguish between gas from petroleum and other kinds of gases, it must be noticed whether the bubble of gas, on breaking in water, leaves an oil film. If it does so, it may be regarded as evidence that the gas contains petroleum vapour, and is therefore the kind sought. Oil in economic quantities may not be below, however, as it is not always found where gas is. (4) The escape of hydrogen sulphide, incrustations of sulphur and "sour waters" are phenomena often associated with the petroleum fields. Low mounds of the Spindle Top type are characteristic of the occurrence of oil in the Gulf field.

The Appalachian field extends from Western New York in a general south-westerly direction along the western side of the Allegheny mountains, through Pennsylvania, Eastern Ohio, West Virginia, into Kentucky and Tennessee. Although some petroleum occurs in conglomerates, the rocks from which the greater part of the oil is derived, are principally sandstones. These sandstones extend in age from the Allegheny formation of the Pennsylvanian nearly to the base of the Devonian.

Referring to Fig. 1, whether the oil will be in the syncline, near the top of the anticline or at some intermediate point, will depend upon the degree to which the the strata are saturated with water.

In dry rocks the principal places of accumulation of the oil are at or near the bottom of synclines, at the lowest point of the porous medium, or at any point where the slope of the rock is not sufficient to overcome the friction, such as structural terraces or benches. In porous rocks completely saturated, it will be in anticlines or along level portions of the structure. Where the area of porous rocks is limited, the accumulation will occur at the highest point of the porous medium ; and where areas of impervious rocks exist in a generally porous stratum, the accumulation will take place below such impervious stop, which is really the top limit of the porous rock. In porous rocks partly filled with water, the oil accumulates at the upper limit of the saturated area. This limit of saturation traces a level line around the sides of each structural basin, but the height of this line may vary greatly in adjacent basins and in different sands of the same basin.

Partial saturation is the condition most generally found in the Appalachian field. The most likely places, however, for the oil to occur is upon structural terraces or levels, as these are favourable to accumulation in both dry and saturated rocks. When the petroleum occurs in synclines, there must be water in the rock just below the oil to get it in paying quantities; for if the rock is dry the oil will not be forced into the well, unless by the gases which it may contain.

The approximate distillation products of the crude oil obtained from this field are as follows:—Naphthas, gasolene, benzine, etc., 12 per cent.; illuminating oil, 67; lubricating oils (including grease), 12½; gas oil and fuel oil (including acid oil, asphaltum oil and asphalt), 4; paraffin wax, 2 per cent.

The oils of this field are practically free from asphalt and sulphur. In Kentucky and Tennessee, however, the oil varies so distinctly within short distances that it frequently resembles the sulphur oils of the Lima-Indiana field. The gravity of Pennsylvania oil is 46·2° to 42·6° B.

The production of the Appalachian field, including the States of Pennsylvania, New York, West Virginia and South-eastern Ohio, Kentucky and Tennessee in 1907 was 25,342,137 barrels of 42 gallons each. Production in 1908, not including Kentucky and Tennessee, was 24,240,000 barrels; in 1909, 25,394,200 barrels. The amount obtained from Kentucky and Tennessee in 1907 was 820,844 barrels; in 1908, 1,250,000 barrels; in 1909, estimated at 1,250,000 barrels.

The Lima-Indiana field includes the north-western part of Ohio and a strip in the middle of Indiana. The oil occurs mainly in the dolomitic Trenton limestone of the Ordovician, a section of which is shewn in Fig. 2, having accumulated in anticlines. It should be noted that the oil is only in those parts of the limestone that have been changed to dolomite. The reason for this is that when an ordinary limestone of calcium carbonate is changed to the limestone containing magnesium, which is called dolomite, the resulting rock is porous, for a crystal of dolomite does not take up so much room as a crystal of lime. In the spaces thus left, the petroleum was able to collect. The Lima Indiana field yields petroleum having such a high per cent. of sulphur that the oil is subjected to a special treatment to free it from this element.

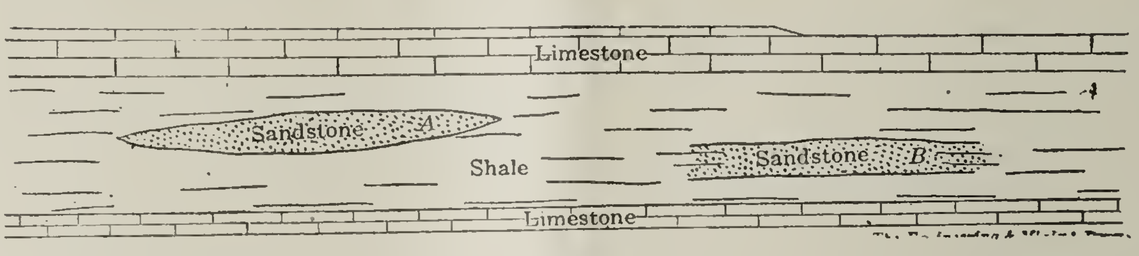

Fig. 3.—Mid-Continental Field, Shewing Disappearance of Sandstone Beds.

The distillation products are:—Naphthas (gasolene, benzine, etc.), 11½ per cent.; illuminating oil, 43; lubricating oil, 15; gas oil and fuel oil, 25; paraffin wax, 2 per cent. The gravity of Ohio oil is 42·8° to 32·5° B.

The production in 1907 was 13,121,094 barrels; in 1908, 7,287,000 barrels; in 1909, 6,192,000 barrels. The maximum production of this field from 1902 to 1907 was in 1904, when it produced 24,689,184 barrels.

In the Illinois field the oil comes principally from eight or ten separate pools in the south-eastern part, though small isolated pools have been developed in other places in the State. The oil-bearing rocks are generally sandstones or sandy shales, such as are always found in the coal measures, all being Pennsylvanian in age, with the exception of the Kirkwood sand, which is found in the Chester formation of the Mississippian. In the Westfield pool, however, part of the oil is found in a coal-measure limestone, locally altered to dolomite. This occurrence is particularly striking in view of the fact that none of the similar coal measure limestones are known elsewhere in the State to be magnesian. Indeed, these limestones are characteristically nonmagnesian.

The general structure of the field in South-eastern Illinois is anticlinal. This structure, as elsewhere, is an important condition to the accumulation of the oil, minor arches also being important. The sides of the arches under which the individual pools of gas and oil here occur, if plotted to scale, are not too steep to form thoroughly practicable railway grades.

In an analysis of samples taken from 34 wells in the Illinois field in 1908, the oils range in gravity from 39·5° in the deep wells (1,500 feet) to 22·3° B. The oils contain small percentages of sulphur; in the extreme northern part of the field the sulphur runs no higher than 0·5 per cent., and farther south the average is about 0·25, the oils being taken as nonsulphur.

The average for the State of the samples taken was 13·2 per cent. distilling below 150° C., while the illuminating oil averaged 31·2 per cent. Nearly all the oils contained considerable proportions of paraffin and were practically without any asphalt.

The product in 1907 was 24,281,973 barrels; in 1908, 38,844,899 barrels; in 1909, 29,500,000 barrels. This field has had a phenomenal growth, for in 1905 the production was only 181,084 barrels.

The Mid-Continental field comprises South-eastern Kansas, Oklahoma and Northern Texas. The important accumulations of oil occur in disconnected lenses or beds of sandstone at various horizons in the Cherokee shale formation of the Pennsylvanian series. Of these sandstone beds there are two classes in the Cherokee shale:—(1) A lens-shaped deposit (see Fig. 3) of sandstone which, as it thins out, finally ends abruptly, and the shale begins, there being no grading of the sandstone into the shale. The reason for this is that the lens was formed when only sand was being deposited. (2) A sandstone which grades into the shale. This type of deposit was formed at a time when both sand and mud were being laid down, according to the varying strength of the currents, which at one time were able to carry sand, at another only mud. The first class of deposit is apt to extend for longer distances than the second type, which varies from place to place in an extremely irregular manner.

(To be concluded.)

* * *

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E. A. M. OIL SYNDICATE, LIMITED.

Registered April 16th, by Messrs. De la Chapelle and Co., 34 and 36, Gresham Street, E.C. Capital, £1,000, in 2s. shares. Objects: To acquire, deal with and turn to account oil bearing lands, concessions and mining rights and metalliferous land in any part of the world. Minimum cash subscription, seven shares. The first directors (to number not less than two nor more seven) are: F. Knollys and O. Tchighianoff. Remuneration, as fixed by the company.

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MAIKOP MUTUAL OIL TRANSPORT COMPANY.

Registered on May 11th with a capital of £262,500 (250,000 participating preference shares of £1 each and 250,000 deferred shares of 1s. each. The company has for its objects the acquisition of lands, concessions for constructing pipe lines, options, rights, privileges, oil, petroleum, and mineral-bearing lands, pumping stations, refineries and distilleries, etc., in Russia or elsewhere, to carry on the business of transporters and carriers of oil and petroleum, and to adopt an agreement with the Maikop and General Petroleum Trust, Ltd. The signatories are:—C. L. King, The Woodlands, Ashtead, Surrey; W. F. Aldous, 84, Hollydale Road, Peckham, S.E.; H. G. Goddard, 30, Osborne Road, Stroud Green, N.; M. J. Spyer, Holmdale, Church Crescent, Finchley, N.; E. R. Blackman, 35, Erlanger Road, New Cross, S.E.; R. W. Lucy, 66, Dempsey Street, Stepney, E.; A. S. Peters, 106, Osborne Road, Forest Gate, Essex. Minimum cash subscription, £25,000. First directors (not less than three nor more than seven) to be appointed by signatories. 100 shares.

STANDARD OIL COMPANY OF MAIKOP (SCHIRVANSKI).

This company was registered on May 11th with a capital of £135,000 in 5s. shares. The objects are to acquire any petroleum, asphalt, naphthaline, or oil-bearing lands in Russia or elsewhere, and to adopt an agreement with the Maikop, European and General Oil Trust, Ltd., with regard to acquiring plots in the Maikop oil field. The signatories are:—J. A. Fuller, 110, Sirdar Road, Wood Green, N.; E. T. Church, 39, Hetherington Road, Clapham, S.W.; H. Spinks, 37, Fletching Road, Clapton, N.E.; E. S. Harper, 58, Hanover Road, Willesden, N.W.; H. W. Brown, 41, Mackenzie Road, Beckenham; P. M. Cullen, Revidge, Blandford Road, St. Albans; R. C. Hornby, 11, St. Anne's Road, Leytonstone. Minimum cash subscription, 7 shares. First directors (not less than three nor more than seven) to be appointed by signatories. £400. £200 each per annum (£100 extra for the chairman) and a percentage of the profits.

NEW OIL PROPERTIES.

Registered on May 11th. This company with a capital of £500,000, is to take over the principal assets of Oil Properties, Ltd., and to carry on the business of financiers, capitalists, merchants, etc. The signatories are: J. A. Bryce, M.P., 35, Bryanston Square, W.; J. S. Wetzlar, 5, London Wall Buildings, E.C.; W. Plender, C.A., 5, London Wall Buildings, E.C.; W. R. Openheim, 28, Bishopsgate Street Within, E.C.; E. B. d'Erlanger, 8, Crosby Square, E.C.; O. Bischof, 22, Dryden Chambers, 119, Oxford Street, W.; G. C. Duffus, 33, St. Germains Road, Forest Hill, S.E. (500 shares each). Minimum cash subscription, 250,000 shares.

NOTES FROM THE OIL FIELDS.

RUSSIAN NOTES.

The Grosny Spouter.—A second spouter has broken out from the well No. 2 on the plot No. 40 of the Kasbeck Syndicate at Grosny, which gives a daily production of about 50,000 poods of oil.

Oil Fuel for Italy.--The Imperial Russian Consul in Italy has informed the Ministry of Trade that one commission-agency in Italy has made a proposal to import oil residues from Russia for the Italian navy's supply.

More Spouters.—The daily production of oil from the spouter on Messrs. Mirzoeff's property amounts from 15,000 to 20,000 poods. The spouter on the property of the Baku Oil Co., which recently began to spout from the well No. 26, has stopped owing to obstructions formed in the borehole.

Petition for Decrease of Duty on Kerosene.—The Board of Association of the Oil Producers of Baku has decided to support the petition of the Volga shipowners for a decrease in duties on kerosene oil. The reasons put forward by the Board are: an enormous falling off in the export trade of this product, and a small local consumption as a result of high prices.

The Spouters in Surakhany.—The large spouter on Messrs. Benkendorff's property is continuously spouting from 35,000 to 40,000 poods per day. As is already known this spouter began its activity on December 13th, but in the first three weeks spouted with interruptions. The continuous spouting began on January 4th. The oil is spouting with enormous force, although the production of oil in the last two or three weeks has considerably decreased.

Independent Oil Department in Baku.—The Russian Ministry of Trade and Industry has under consideration a Bill for providing Baku with a special Department for the purpose of dealing with all business in oil. The chief aims of the new institution is the concentration of all questions on oil production and distribution, which are now dealt with in different Departments of the said Ministry, and in the same time to improve the state of the oil industry in the Caucasus.

Mantascheff and Co.—It is officially published that, by order of the Tzar, The Oil Producing and Trading Society, A. I. Mantascheff and Co., has obtained the right to decrease their share capital from 22,000,000 roubles to 11,000,000 roubles, by writing down 11,000,000 roubles from the balance of this society on the 1st January, 1909, under the conditions approved by the general meeting of shareholders held on 27th September, 1909. Every two existing shares of 250 roubles each will be replaced by one of the same value.

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AMERICAN NOTES.

More Independent Storage.—With a view to taking care of as much of the independent producers' oil as possible, the Union Oil Co. of California has recently placed contracts for the erection of forty 30,000-barrel storage tanks in the various fields.

The Lakeview Oil Gusher.—This gusher, which was illustrated in a recent issue of the REVIEW, still continues, according to the latest information, to produce 40,000 barrels per day, its flow even now being only limited by the size of the casing. The oil is now being taken care of, and as much as possible is being transported.

Californian Statistics.—According to statistics published in the current issue of the *Oil, Paint and Drug Reporter*, there are approximately 4,200 oil wells in California, representing an investment of $42,000,000. The 2,100 miles of pipe line in the State represent $12,600,000, and the 35 refineries are valued at $18,000,000, and the 20,000,000 barrels of crude oil in storage at $10,000,000, which together with the field equipment, 5,000 tank cars and 35 tank steamers, makes a total of about $110,000,000 invested in the Californian petroleum industry.

More Records from the Mid-Continent Field.—Following a three cent increase in the price of Mid-Continent crude oil, there is now great activity in the fields, as is seen by the fact that during April more wells were completed than at any previous time in the history of the field. The total number of wells drilled during the month was 520.

To Develop the Wyoming Fields.—It is rumoured that a number of Californian capitalists are about to enter the Wyoming fields in order to commence immediate developments. Though the difficulty in the past has been the inaccessibility of the territory, it is now suggested that a pipe line will be laid to the coast—over 1,300 miles distant.

New Californian Companies.—It is officially stated that, during the first three months of the present year, no less than 139 new oil companies were incorporated in California, representing a total capitalisation of close upon £30,000,000. This amount is almost equal to the capital of the whole of the new companies registered in the Californian fields during 1909.

Another Illinois Gusher.—A communication from Lawrenceville, Ill., states that another gusher has been recently brought in, this one being upon the property of the International Oil and Gas Co. The gusher is doing about 3,000 barrels per day, this being the approximate yield of the two wells brought in a few days before upon property in the neighbourhood, and owned by the Ohio Oil Co.

◆

ROUMANIAN NOTES.

We learn that Mr. George Mavrocordat, chairman of the Council of the Aquila Franco Romana, has been decorated by the French Government by the insignia of an officer of the "Legion of Honour."

Roumanian Production.—The production of crude oil in the Roumanian oil fields during the first three months of the present year amounted to 343,350 tons as compared with a total of 280,213 tons for the corresponding three months of 1909.

"Association des Industriels de Petrole."—The annual meeting of the "Association des Industriels de Petrole" was to take place on the 12th May, but, owing to the report not being ready, the meeting was adjourned until the 25th May.

Japan and Roumanian Petroleum.—The Credit Petrolifer has sold to the Japanese refineries 15,000 tons of crude petroleum. We now learn that on the 26th of May a Japanese steamer, "Soyo Maru," will arrive at Constantza to ship the first 600 tons. This will be the first Japanese steamer to call at Constantza.

The One per Cent. Tax on Crude Oil.—A committee, consisting of the Engineer Prischarin, Director of the Mines, Engineer C. Malaceano, Director of Industry, and Mr. T. Boambo, has under consideration the protest made by the petroleum producers against the taxation of crude oil for the financial year, April, 1908—April, 1909. The result will shortly be announced.

Distribution of Lamp Oil.—As the distribution of the consumption of lamp oil cannot yet be made, and in order that the consumption shall not suffer, the Minister of Finance has granted to the petroleum refineries for the month of May a provisional quantity of oil, not exceeding in each case one-ninth part of the production of each refinery between July, 1909, to April, 1910.

The Nafta Company.—The general meeting of the shareholders of this company took place this week at Antwerp. The net profit of the year 1909 amounted to 567,365 francs, as against 444,490 francs in 1908. A dividend of 6½ per cent. on the shares of the initial capital of 1,600,000 francs, and of 5 per cent. *pro rata* on the shares of the additional capital of 400,000 francs, as well as a bonus of 1,875 francs per share on the 16,000 shares was decided upon, and 402,077 francs was placed to general reserve.

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This list is restricted to companies who have paid dividends or who are producers.

Company.	Capital Paid Up.	Value of Shares.	Latest Prices.
Assam Oil	£310,000	£1	14/6-15/6
Bibi-Eybat Petroleum Co.	£380,000	£1	4/6-5/6
Californian Oilfields	£400,000	£1	5½-5¾ ex
Commonwealth Oil Co.	£500,000 Pref.	£1	$\frac{11}{16}$-$\frac{13}{16}$
,, ,,	£225,000 Def.	£1	$\frac{11}{16}$-$\frac{13}{16}$
Lobitos Oilfields, Ltd. (£1)	£360,000	£1	32/0-33/0
Pacific Oilfields, Ltd. (£1)	£200,000	£1	22/0-23/0
Russian Pet. & Liquid Fuel	£500,000 6½% Pref.	£1	2/0-3/0
,, ,,	£600,000 Ord.	£1	2/0-3/0
Schibaieff Petroleum	£575,000 6% Pref.	£5	6/0-8/0
,, ,,	£575,000 Ord.	£1	1/0-2/0
Shell Transport & Trading	£2,300,000	£1	96/0-97/0
,, ,, ,,	£1,000,000 Pref.	£10	11-11¼
Spies Petroleum Company	£465,000	10s.	28/6-29/6

RUSSIAN COMPANIES.

Company.	Nom. Value in Roubles.	Latest Quotations.	
		Lowest Roubles.	Highest Roubles.
Baku Naphtha Co.	100	331	350
,, ,, ,, (issue of 1908) fully pd.	100	327	328
Balakhany Naphtha Co.	250	—	—
Caspian Society	1,000	4,275	4,550
Mazout Co.	250	—	—
Melikoff, A. C.	250	—	—
Mirzoeff Bros.	250	—	—
Naftalan Co.	250	—	—
Naphtha Co. "Kavkas"	250	—	50
Naphtha Trading Co., A. I. Mantacheff & Co.	250	127	129
Neft Co.	250	260	—
Nobel Bros.	5,000	10,400	11,400
,, ,,	250	—	598
Rops and Co. V...	250	315	316
Russian Naphtha Co.	250	—	—
Society Mazout	250	—	400
Ter-Akopoff Co.	250	—	—
Tumaieff & Co., J. G.	250	96	—
Volga-Caspian Naphtha and Trading Co	250	—	—
,, ,, ,, (Second Issue)	250	—	—

SCOTCH COMPANIES

Supplied by Messrs. MACLEAN AND HENDERSON, STIRLING.

Company.	Capital Paid Up.	Value of Share.	Latest Prices.
Anglo-Persian Oil Co., Ltd., 6% Part Pref. (10s. paid)	£150,000	£1	11s. 9d.
Do. 5% Deb. Stock	£600,000	£100	£96 5s. 0d.
Broxburn Oil Co., Ltd., Ord. 17/- pd	£235,000	£1	£1 16s. 6d.
Do. 6% Cum. Pref.	£100,000	£10	£12 0s. 0d.
Burmah Oil, Ord.	£1,100,000	£1	£6 3s. 0d.
Do. Pref.	£250,000	£1	£1 7s. 0d. xd
Dalmeny Oil Co., Ord. (7 paid)	£37,800	£8 10s	£5 2s. 6d.
Do. 5% Pref.	£18,900	£7	£4 10s. 0d.
Oakbank Oil Co., Ltd., Ord.	£170,000	£1	£1 17s. 6d.
Do. Pref. (£1 paid)	£100,000	£1	£1 4s. 6d.
Pumpherston Min. Oil Co., Ld., Ord. (17s. paid)	£110,500	17s.	£9 0s. 0d.
Do. 6% Cum. Pref.	£100,000	£10	£12 12s. 6d.
Tarbrax Oil Co., Ltd. Ord. (£1 pd.)	£65,000	£1	£1 14s. 6d.
Do. 6% Cum. Pref.	£40,000	£1	£1 4s. 6d.
Young's Paraffin Co., Ltd., Ord.	£452,808	£4	£3 1s. 6d.
Do. "B" Deb.	£150,000	£100	£155 0s. 0d.

DUTCH COMPANIES.

Company.			Latest Quotations (per cent.)
Dordtsche Petroleum Industrie My.		Aand.	190
,, ,, ,,	Pref.	,,	214
Int. Roum. Petroleum Maatschappij		,,	25½
Royal Dutch Petroleum Co.	Old	,,	527
,, ,, ,,	New	,,	498
Mœara Enim Petroleum Maatschappij		,,	252
Oklahoma Petroleum Co.	Pref.	,,	133½
,, ,, ,,	Ord.	,,	51
Perlak Petroleum Maatschappij		,,	146
Sumatra Palembang Petroleum Maatschappij		,,	197½
Zuid Perlak Petroleum Maatschappij	Pref.	,,	180
Union Petroleum Co.		,,	93⅓
Bibi-Eybat Petroleum Maatschappij		,,	29
Russian Petroleum and Liquid Fuel Co.		,,	20
,, ,, ,,	Pref.	,,	21
,, ,, ,,	(6% Debs.)	,,	40
Schibaieff Petroleum Co. (Ord.)		,,	9
,, ,,	Pref.	,,	20
Shell Transport and Trading Co.	Ord.	,,	750
Tulsa Petroleum Co.		,,	93

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THE
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SATURDAY, MAY 21, 1910

King Edward VII.

SINCE the last issue of the REVIEW went to press, we as a nation have been plunged into a sudden and very real grief by the decease of King Edward the Seventh.

Not only as loyal subjects will our readers grieve for the death of our beloved Sovereign; they will also sorrow for him as one who throughout his reign—unhappily cut so suddenly all too short—evinced the greatest interest in the petroleum industry. The petroleum industry, none the less than any other, joins with all national and international commerce in deploring the loss of so truly great a ruler, for without a doubt it was the influence of King Edward the Seventh which created such a feeling of commercial security, and thus assisted so materially to develop and extend the scope of the petroleum industry.

That His Majesty took the keenest interest in the general welfare of the industry is admitted by all who have given the subject a moment's thought, for there is no other nation in the world wherein so so many of its worthy subjects have received those life-long honours which alone a reigning monarch can bestow.

In this respect the petroleum trade of this country has been particularly fortunate, for almost every branch of it finds one or more of its leaders has at some time been chosen for Royal distinction.

The names of many such honoured persons pass through our mind as we write. First and foremost we have Sir Marcus Samuel, Bart., a gentleman whose name is honoured the world over as one of the greatest pioneers of the petroleum industry. The efforts of Sir Marcus—first in bringing the Far Eastern fields before the public gaze, then in whole-heartedly developing them in the interests of British capital, while at a later date determinedly fighting with success in his endeavour to obtain the removal of the drastic restrictions placed upon petroleum cargoes passing through the Suez Canal—are well worthy of a master mind, whose loyalty and devotion to country and commerce made him at once one of the chosen for a Sovereign's honour. Then we have Sir Boverton Redwood, whose association with the petroleum industry dates back almost to the time when petroleum enterprises first began to assume an importance in English financial circles.

Sir Boverton's position to-day as Adviser to the Home Office upon explosives, is no sinecure, since the moulding of the whole of the legislation regulating the storage and transport of petroleum and its products requires his careful attention. To him, therefore, the petroleum trade of this country looks for the drafting of regulations that shall at all times be equitable and calculated not to harass trade, and it is highly gratifying to find that our late Sovereign saw fit to bestow upon Sir Boverton the honour which he has so well deserved.

Sir Max Waechter, whose close association with the petroleum industry is well known, is likewise another gentleman whose works have received their reward from the Crown, while Sir Fortescue Flannery's name is a household one in almost every country.

Sir Fortescue has for many years been closely identified with the designing of bulk oil carriers, and it is doubtless greatly due to his own efforts that such large cargoes of petroleum products are to-day transported from one end of the world to the other with such economy and safety.

As we have said, it is the privilege of no other nation to count among its members of the petroleum industry so many gentlemen whose labours have received the recognition of the reigning Monarch.

It may, perhaps, not be common knowledge that during the nine years' reign of King Edward VII. British interest in the petroleum industry increased six-fold, yet such is the fact. But the petroleum industry is no exception. Since the advent of the present century, under the noble influence exercised by his late Majesty upon international commerce, British trade has materially expanded in every direction, and to-day holds a prestige such as never before.

But the present is an occasion when we can truly say, "The King is Dead—Long Live The King," for while we mourn for the departed, we also welcome to the throne a worthy son of a worthy sire. In King George the Fifth we have a ruler whose direct interest in commercial prosperity and industrial integrity promises to be as keen and sincere as was the case with his illustrious sire. Thus it is that in this hour of national mourning we would with all heartiness echo those noble words, "God Save The King."

THE OIL SHALE DEPOSITS OF CANADA.

THEIR GEOLOGICAL POSITION AND CHARACTER.

— By —
Dr. R. W. ELLS,
LLD., F.R.S.C.

(Concluded from page 271.)

Though numerous attempts have been made by borings, since 1876, to find other veins of this mineral in the shale areas, none of these have been successful outside the area of the Albert mines. It is probable, therefore, that conditions exist in that district, either through peculiarities of anticlinal structure, fissuring, or in the nature of the original deposit, which do not occur in other parts of the shale field.

The geological formations of the district may be briefly stated. At the base are pre-Cambrian rocks, consisting of schists and hard slates, granite, and diorite. These form the ridge known as Caledonia mountain. In their extension westward from the Albert mine these rocks are almost continuous to the vicinity of St. John city. In Kings county they are overlaid by sediments of Cambrian age, well recognised by characteristic fossils, but in Albert county and eastern Kings these old sedimentaries are apparently absent, and the crystalline rocks are directly overlapped by a series of shales, conglomerates and sandstones, which are a part of the Devonian system, in which the portion known as Albert shales is included.

For many years these were regarded as of lower carboniferous age, but their abundant fauna of fossil fishes, together with the abundance of plant remains, some of which are similar to those found in the typical Devonian of Gaspé and elsewhere, together with the fact that everywhere yet studied they are unconformably beneath the recognised lower carboniferous limestone series, in New Brunswick, Nova Scotia, and Newfoundland, have led to their being now regarded as an upper portion of the Devonian. The reason of this change in horizon is more apparent from the fact that westward in Kings county they have been found to constitute an integral part of the Perry group, which occurs at intervals from the western part of the province through southern New Brunswick into Nova Scotia.

From the most recent work on the rocks of this group both in Maine and in New Brunswick, it has been conclusively established that this group really belongs to the upper part of the Devonian system, both by the fact that the shales and sandstone carry a well-defined Devonian flora, and that everywhere it is unconformably overlaid by the series of marine limestones which are associated with deposits of gypsum in New Brunswick and Nova Scotia, now regarded as constituting the proper base of the lower carboniferous rocks, and of the carboniferous system as a whole.

The views stated by Drs. Bailey and Ells, in the report for 1876-7, regarding the structure of the shale formation, though now modified in some respects by more recent study of the several districts, may be briefly stated.

The Albert shales form a belt extending from the Memramcook River, between Dorchester and Memramcook on the east to within a short distance of the village of Hampton, a distance of about 70 miles. The rocks of this belt are concealed in many places by over-lying drift deposits or by lower carboniferous sediments, comprising limestone, gypsum, conglomerate, marly shales and sandstone, which overlie unconformably the shale formation. As these shales re-appear at intervals on the general line of strike to the south-west often with but little change in character, it is probable that the areas are continuous throughout, and are repeated at various points by the presence of anticlines which have brought the lower beds to the surface.

East of Albert mines no pre-Cambrian rocks are visible; but west of that place crystalline rocks of pre-Cambria age rise abruptly in the prominent ridge known as Caledonian mountain range, and, as already remarked, continue thence nearly to the city of St. John, the shale formation lying against its northern flank for some miles. Westward the strongly marked bituminous character of the shale decreases somewhat, but the formation as a whole can be readily recognised as far as the head of Kennbecasis Bay, which is an arm of the lower part of the St. John River.

In Nova Scotia, rocks of similar age, also strongly charged with hydrocarbons, are developed at several points, though the well-defined brownish bituminous characters were not seen in this province, the colour of the shales being generally black or greyish.

The formation evidently is continuous on Kennebecasis Island, which lies in the bay of that name, a few miles north of St. John city, the shales here being grey and black, with grey and brown sandstones; but as far west as Apohaqui, along the south side of the Inter-colonial railway, their character as brown bituminous shales is well preserved. They can be well seen on the roads between Sussex and Bloomfield to the south of the railway, and their bituminous nature is apparent in their westward extension nearly to Hampton, where some years ago they were mined in a search for coal. In this part of Kings county their position as a part of the Perry group can be well seen. This formation at the base consists of massive red conglomerate, shale and sandstone, with a thickness of several thousand feet. These pass upward gradually into greyer and more sandy beds, alternating with grey and dark shales, which abound in plant remains, partly of Devonian aspect and partly of carboniferous types. In places, these upper shales contain fish remains similar to those of the Albert series, the associated plant remains, which are very abundant in certain layers, having a like similarity. The shales of Albert and Westmoreland counties, according to the Geological Survey examination in 1876, shew generally the following succession:—

Basal conglomerates, sometimes absent; but when present, often greenish in colour, both coarse and fine textured, sometimes with reddish beds, and made up of the debris of the underlying pre-Cambrian rocks, the thickness not definitely ascertained but variable; occur in isolated basins as in Kings county. They apparently pass up into calcareo-bituminous shales and sandstone, with thin limestone, grey to dark brown in colour, in places quite black, rich in hydrocarbons, with thin bands of ochreous weathering ironstone. Their thickness, as measured in several sections, is from 850 to over 1,000 feet. The shales are sometimes very thin bedded, or papyraceous, separating readily into thin flexible sheets, the surfaces of which are are sometimes almost covered with remains of fishes. Other shales are greyish tinted, especially on weathered surfaces, but chocolate coloured on fresh surfaces, and are associated with hard and massive bands, well bedded, often destitute of apparent shaly structure or lamination, except on well-weathered surfaces of outcrops. These hard beds are very tough, break with a well defined conchoidal fracture, and are especially rich in hydrocarbons. They kindle readily and burn freely owing to the quantity of contained oil. In colour they range from almost jet black to brownish-black, and sometimes are decidedly grey, with frequent streaks and layers of black bituminous matter somewhat resembling Albertite. Portions of these beds shew a very curly structure, indicating apparently a greater percentage of hydrocarbons in composition, as if they had been effected by movements in the mass, which were resisted by the denser portions of the shale beds. These massive bands constitute what are known as the oil shales proper, though a large portion of the mass of brown bituminous shales, as well as of the grey beds, is sufficiently saturated with hydrocarbons to ignite quite readily.

As has already been remarked, the fossil remains of fishes are quite abundant at places in the shale beds, some of the papery layers being almost covered with their impressions, while hard nodular masses, scattered through the shales, on splitting, often yield larger forms, also in a very perfect state of preservation. Large numbers of these fossils have been obtained from time to time, and during the season of 1908 very full collections were made by Mr. L. M. Lambe, more especially in the vicinity of the Albert mines.

Numerous boreholes have been put down by different companies to ascertain the presence or otherwise of crude oil; but as in the case of Scotch shale, all such attempts have resulted in failure to find wells with an economic yield, the contained oils apparently being obtainable only by distillation. In many respects these New Brunswick shales correspond very closely with those of Scotland, which have for half-a-century been extensively mined and distilled with much success, but from which free oils of economic importance, either in the borings or the extensive underground workings, have never been obtained. As a very large portion of the Scottish shales has thus been proved, it is only natural to suppose that further attempts to obtain oils in the free state from such bituminous shales would be equally unsuccessful. It is possible that the lack of success attending the numerous boring operations in the shales of both countries, as regards finding native oil, may be due, in part at least, to the generally disturbed and faulty nature of the ground.

In New Brunswick this feature is very pronounced, the strata being often highly inclined, and the indications of faults numerous. The same features are seen in the several shale areas of Scotland; so that it would appear that no oil reservoir where large bodies of oil might accumulate actually exists in either country. That this is the case in New Brunswick, in Nova Scotia, and in Gaspé seems to be fairly well established; for while small quantities of native oil have been found in a number of the wells—and there are several springs in the shale country which shew its presence—up to the present time nothing of commercial importance has been met with, and boring operations have been discontinued for several years.

So far, it has been impossible to obtain the logs of the wells from most of the localities where boring operations have been carried on. Of some 65 or 70 wells bored in the Memramcook-Petitcodiac district in New Brunswick, the logs of only three are available; at Baltimore also three have been obtained; while of those bored at Albert mines and at Elgin no record has apparently been kept. This is greatly to be regretted, since, had reliable logs been preserved of the strata passed through, our knowledge of the shale problem would have been largely increased. In none of these holes was the underlying base of the shale series apparently found, though at one point in the southern part of the Dover field a depth of 3,000 feet was reached. The only information obtainable is the verbal statement that red rock was at the bottom.

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THE RUSSIAN PETROLEUM AND LIQUID FUEL COMPANY, LIMITED.

EXTRAORDINARY MEETING OF SHAREHOLDERS.

An extraordinary general meeting of the shareholders of the Russian Petroleum and Liquid Fuel Co., Ltd., was held on Tuesday week at River Plate House, London, E.C.—Mr. HERBERT ALLEN, the chairman of the company, presiding over a large attendance of shareholders.

In opening the meeting, the CHAIRMAN referred in appropriately sympathetic terms to the death of King Edward, paying a fitting tribute to the memory of the dead Monarch.

The SECRETARY Mr. A. J. MILNE, A.C.A.—then read the notice convening the meeting, which stated that it was held "for the purpose of considering and, if thought fit, passing the following resolution, which, if passed, will be submitted to a subsequent extraordinary general meeting for confirmation as a special resolution: 'That the articles of association of the company be altered, subject to the approval of the Russian Government, in manner following; that is to say, by striking out the existing Article No. 73 and substituting the following article therefor—viz.: The holders of any class of shares may, at any time, and from time to time, and whether before or during liquidation, by an extraordinary resolution passed at a meeting of such holders, consent on behalf of all the holders of shares of the class to the issue or creation of any shares ranking equally therewith, or having any priority thereto, or to the abandonment of any preference or priority or of any accrued dividend, or the reduction for any time or permanently of the dividends payable thereon, or to the amalgamation into one class of the shares of any two or more classes, or to the sub-division of shares of one class into shares of different classes, or any alterations in these articles varying or taking away any rights or privileges attached to any shares of the class, or to any scheme for the reduction of the company's capital affecting the class of shares in a manner not otherwise authorised by these articles, or to any scheme for the distribution (notwithstanding that the same may not be in accordance with the legal rights of shares of the class) of assets in money or in kind in or before liquidation, or to any contract for the sale of the whole or any part of the company's undertaking or property determining the manner in which, as between the several classes of shareholders, the purchase consideration shall be distributed (notwithstanding that the same may not be in accordance with the legal rights of shares of the class), and generally consent to any alteration, contract, compromise, or arrangement which the persons voting thereon could, if sui juris and holding all the shares of the class, consent to or enter into, and such resolution shall be binding upon all the holders of shares of the class.'"

The CHAIRMAN prefaced his remarks upon the resolutions by explaining how it was that he came before them as their Chairman that day. The late directors of the company had not, however, simply retired in favour of the new board which had now been elected, but they had stepped aside solely from a feeling of loyalty to the shareholders. The late directors had not merely contented themselves with retiring: they had promised the new board their loyal co-operation and assistance in their endeavours to restore the company to some measure of its former prosperity.

It was unnecessary for the speaker to deal with the past history and misfortunes of the company, for they were all painfully familiar with it, but he believed that those troubles started in the early days with the payment of excessive dividends without making provision for the rainy days which were bound to occur, and which their company had experienced to a marked degree. To illustrate the disastrous effects of inadequate development on an oil property he had only to tell them that in 1904 their company did 19,000 odd feet of drilling, but in 1909 it only did 3,000 odd, and so it was that while in 1904 their production of crude oil was 29,000,000 poods it fell to 9,000,000 poods in 1909. That falling off was, of course, due to the inadequate amount of drilling work done, and the cause of that was that the company had not the money to do it. His own feeling was that, excepting in its very early days, their company had never a fair chance of enjoying a fair amount of prosperity.

The directors had told them in their circular of the appalling burden of liabilities at present hanging over the company. But they had told them nothing of the other side of the picture—of the still valuable properties which the company owned, and of their vast potentialities, if only they were given the chance that had so long been denied them—*i e.*, an adequate working capital for their full and proper development. They had not only the celebrated fountain plot No. 19 at Bebe-Aibat, a plot which was known practically all over the world to possess oil bodies quite undreamt of until two or three years ago, and oil bodies which were to all intents and purposes not yet exploited. In addition to that they had plot No. 4, which was practically a virgin plot, and also believed to be a fountain plot. Those were two great and valuable properties that the company possessed at Bebe-Aibat. Then there was a third plot, plot No. 53, which was on the borders of the Caspian, just below plot No. 19. The position of their company was almost unique, for it was free, or practically free, from those heavy royalties and dead rents which were such a terrible burden on some similar companies in Baku. As they were aware, they had in their company a very great diversity of interests. They had various classes of creditors—some secured, some partly secured, and some not secured. Then, after crossing the gulf which divided creditors, including debenture-holders, from shareholders, they had the diversity of interests which existed even between the shareholders themselves—that was, between the preference and ordinary shareholders. It would be very obvious to them that to bring all those conflicting interests into line would not be an easy task; but it had got to be done, and they hoped, by holding the scales fairly and justly between every section and every class, whether it be creditors or shareholders, or both, to succeed in their efforts, and to do it to the satisfaction of each class as a class. Their business that day was purely formal, and was intended merely to pave the way for matters of greater interest that would come before them at a later stage. The resolution which had just been read out was somewhat bewildering, if not alarming, in its language; but it was perfectly simple and innocuous in its effect, which was merely to enlarge—nothing more—but not to diminish the powers of each class of shareholder, without detriment to either. In other words, it would give the two classes of shareholders the power (which they did not at present possess) of varying their respective rights, and approving, if they thought fit, any scheme of reconstruction which might be laid before them at a later stage.

As to reconstruction, the first thing to do was to get their own house in order. Their liabilities, amounting to about £1,000,000, had to be got rid of, and then the next step would be to provide working capital, and plenty of it. Niggling sums, such as the company had had at its disposal in the last few years, had not served, and could not serve, any useful purpose whatever in a great concern. The properties of their company were very large; the nominal capital was, and must continue to be, large; and the only thing that could give reasonable hope of a large return on that nominal capital was a long purse. The development work must be on a large scale. Therefore, whatever scheme it might be, it would have to provide adequate working capital, as otherwise they would be merely throwing good money after bad. Of course, a large working captial was not going to be spent in a day, and all the development work that was necessary on these great properties was not going to be done in a day. Therefore their scheme must not saddle the company with any fresh burden of interest charges whilst they are rehabilitating their business, sinking new wells, and opening up those great oil bodies which were known to exist on their properties, and which were only waiting to be tapped. Unless they (the board) could secure from the creditors conditions which would free them from all dangers of that kind, he would certainly not ask the shareholders to make any fresh sacrifices, or to follow up their past losses with further money. That day they were asked to commit themselves to nothing beyond, perhaps, an implied expression of opinion that the time had arrived for action.

Until last Saturday morning—that was the last day for receiving proxies—from amongst the large body of shareholders in the company, in reply to the directors' circular, there had been sounded only one discordant note. The proxies received by the board in support of the resolution were over 900 in number and nearly 600,000 in voting strength. Since then it had accidentally come to the knowledge of the directors that a circular had been sent out to the shareholders, or to a select number of them, urging those who had already sent their proxies to the directors to withdraw them, and to replace them by proxies in favour of three gentlemen describing themselves as the "independent shareholders' committee"—Mr. Levy Lever, Mr. Pearson, and Mr. Shaw Kennedy. Now, I am not going to be unkind to those independent gentlemen. It would ill-become him—a stranger in the company—to place himself in antagonism to any shareholder, independent or otherwise. He was not even going to ask them what an "independent shareholder" was. He was always under the impression that all shareholders were independent until they became directors, when they were reduced to the level of mere serfs. The questions he desired to put those three "independent shareholders," or that "independent shareholders' committee"—he was at a loss to know whether it was the shareholders who were independent or the committee which was independent—were going to be put in no offensive spirit. He was merely seeking for information, because he had to confess complete ignorance even of the existence of any "committee" of shareholders in that company, independent or otherwise. He had a great respect for committees if he knew they were sufficiently representative and properly constituted, and it was only fair that the new board should know, and that the other shareholders should know, besides those three gentlemen, how far those who had signed the circular were entitled to speak for other shareholders.

The questions he wished to ask were only half-a-dozen in number. The first question was: How many shareholders were there on the committee? By whom were they appointed? When were they appointed? What were their names and their holdings, and what connection had the gentleman who described himself as honorary secretary with the company? Perhaps they would also tell them to how many shareholders that circular was addressed. The effect of that circular that had been sent out in the name of "Independence" had reduced the board's proxies by five. The circular asked people to send telegrams to the company's office cancelling any proxies they might have sent to the directors. The effect of that circular had been to reduce the board's proxies by five —that was, from 911 to 906, and it had had the effect of reducing the number of the board's votes by 968—that was, from 588,000 odd to 587,000 odd. That appeal of the committee of independence had given them a grand total of nine proxies and 3,342 votes. He was going to ask those three independent gentlemen to tell the meeting frankly whether, in face of those figures, they thought that any useful purpose could be served – whether the interests of that company could be served – by an opposition which was so obviously factious.

Mr. ALLEN concluded by moving the resolution.

Mr. RICHARD BARNETT seconded.

Mr. A. LEVY LEVER, in reply to the questions put by the chairman, referred at some length to the constitution of the Independent Shareholders' Committee, remarking that that committee was appointed by the dissentient shareholders, and the names were submitted to Mr. Milne long ago. If the chairman were in ignorance of any committee being appointed, he must be in ignorance of the conditions under which those meetings had been held in the past, because they were reported at length in the newspapers. The reports circulated by the company shewed that a dissentient shareholders' committee did exist. After referring to the support accorded to the committee on the present occasion, the speaker expressed the opinion that in passing the resolution now before the meeting the shareholders would be giving away all their rights, and he asked the chairman to adumbrate the scheme to be submitted to the shareholders in the near future.

Mr. MACKAY said that as Mr. Milne had been in office as receiver and manager for two years he thought some statement of his stewardship should be made. He also suggested that Mr. Lever should be given a seat on the board.

Mr. PEACOCK said he would want to know more about the scheme of reconstruction before committing himself to any resolution.

The CHAIRMAN, in reply to points raised, said that it was neither unusual nor undesirable to appoint as receiver and manager one who was well posted in the affairs of a company, and who was persona grata with the debenture-holders whom he was appointed to represent. They wanted, of all things, a friendly receiver and manager, and he was sure that in the case of this company they could not have a better friend and a better receiver and manager than Mr. Milne had been. With regard to the receiver and manager submitting his accounts to the shareholders, he was answerable solely and entirely to the court which appointed him. He (the chairman) believed he was right in saying that it would be contempt of court for a receiver and manager of this or any other company to present accounts to the shareholders. His accounts went to the court, and, speaking with a great deal of experience, he might say that they were most closely scrutinised.

Mr. LEVER said he had a list of dissentient shareholders who were co-operating with him, consisting of something like thirty or forty shareholders from all parts of the country.

The CHAIRMAN remarked that that did not say who the committee were. Another point, and in one sense a very important point, made by a shareholder was—why was not a scheme brought forward now? Surely, the circular which shareholders had had in their hands for some days explained why a scheme was not brought forward. It was no good bringing forward a scheme until it was matured and adequate to meet all the difficulties of the situation With regard to the effect of the resolution now submitted, the shareholders were not putting themselves in the hands of the directors in the slightest degree. On the contrary, the shareholders were merely enlarging their own powers, so that they would be in a position to vary their respective rights, which, under the present articles, they would not be able to do.

Dr. P. DVORKOVITZ drew attention to the greatly reduced support given on the present occasion to Mr. Lever and his friends as compared with past times, and expressed the opinion that their action originally in demanding two seats on the board was the cause of the delay in bringing forward a scheme of reconstruction.

The CHAIRMAN then put the resolution, which, on a show of hands, was carried with unanimity.

The proceedings then terminated.

THE BRITISH COLONIAL PETROLEUM COMPANY, LIMITED.

The ordinary general meeting of the shareholders of this company was held on Friday, May 6th, at River Plate House, E.C., Colonel Sir CHARLES B. EUAN-SMITH, K.C.B., chairman of the company, presiding.

In moving the adoption of the report and accounts, the CHAIRMAN said that the shareholders would have seen from the report issued to them that their company had not proceeded very actively in developing their property, and the reason for this was very obvious They had had the advantage of profiting by the costly experience of the Nigeria Bitumen Co., which, after years of hard work, had defined the limits of the petroliferous area. Their own company had spent the past year in securing new licenses from the Government, and with those negotiations they were entirely satisfied.

After the report had been seconded by Mr. GEORGE W. NEVILLE,

Mr. JOHN PARKINSON, F.G.S., gave a lengthy description of the situation of the new licenses acquired by the company, especially dwelling upon their advantageous position from a geographical point of view.

The adoption of the report was then agreed to, and the re-election of the retiring director, Mr. C. H. Harley Moseley, and the election of Mr. Parkinson to a seat on the board concluded the meeting.

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The Anglo-Roumanian Petroleum Company, Limited.

. . ANNUAL MEETING OF SHAREHOLDERS . .

The second ordinary general meeting of shareholders in the Anglo-Roumanian Petroleum Co., Ltd., was held on Thursday week, at Winchester House, Old Broad Street, E.C., the Chairman of the company—Mr. F. W. Brandreth—presiding.

The Secretary—Mr. P. E. Barnard—having read the notice convening the meeting and the auditors' report,

The Chairman, at the outset, referred to the great calamity which had befallen the nation in the death of King Edward. Those of them who had business in foreign countries, and had travelled among other nations, knew in what very great respect our late King had been held abroad. Proceeding, the Chairman said: I am extremely sorry that Mr. Tweedy, our managing director, is not able to be with us this morning. He has been working extremely hard during the last six months, and his doctor absolutely forbids his attending this or any other meeting for a few days, and has told him to take a few days rest and go away to the seaside in order that he may recover his usual health and strength. He has asked me to explain to you how very sorry he is. I also am sorry, because he would have been able to give you what, perhaps, I am not able to do, and that is some of the technical details which fall to the lot of the managing director. I should now like to go, with your permission, straight to the accounts. The prospectus recently issued has given you so many details that I do not think I need take up your time in referring to many of them. First of all, there are the creditors in London and Roumania amounting to £4,695. The whole of these creditors, I am glad to be able to tell you, have been paid. I advanced a certain amount of money to the company, and also Mr. Ryndzunsky, as representing Belgian shareholders. With regard to the other side of the balance sheet, the depreciation of 10 per cent. I think is a fair depreciation, because a great deal of the machinery is new, and has really improved in value since we had it. In the profit and loss account there is one item which may strike you as rather large, and that is travelling expenses, £528. That item will not occur again; it was unavoidable, because several of the directors had to go to Roumania on the business of the company. The directors' fees are spread over fifteen months, and I think we have earned them; for we have held no less than 42 board meetings, besides informal gatherings. Last year's working entailed very hard work, and necessitated many visits to Roumania. I myself have been no less than five times on occasions on which it was absolutely necessary.

At the statutory meeting I said that we should first of all aim at safety as regards money; then, secondly, I said that we should secure a reliable staff of men who would take a personal interest in the company with which they were connected. The time has now come when we know so much about the business and its prospects that we are able to employ the additional capital to the great advantage of the shareholders. We thought at one time of issuing some debentures. Now I am glad we did not. There is nothing in front of your ordinary shares, no preference shares, and no debts of any kind, and we have got ample working capital, which I think is a very excellent thing. Not only that, but we have a large proved oil property, and the position is that we have eight completed wells, six under construction, one under repair, and we propose sinking ten new wells at once, which will make a total of 25, and which should give a very handsome return to the shareholders. We propose to spend £20,000 in various directions. With regard to the leases and the auditors' comment upon them, to the effect that they are kept in Roumania, I may point out that we are obliged to keep them in Roumania and not in England, because they are Roumanian State documents, and have to be continually referred to. I may tell you that the manager vouches they are in order and in his safe custody. When the company first commenced work in Roumania I acted as trustee pending its recognition by the Government of the properties. The properties have now, according to Roumanian and English law, been transferred from myself to the company.

There has been one change in the directorate during the last few months. Mr. Warry, who gave us so much help, found that he lived so far away from London, and had so many ties, that he could not attend as he thought he ought to do to the work of the company. With regret we accepted his resignation, and we have elected Mr. J. C. Williamson in his place, and we welcome him very heartily, feeling sure that we shall have the benefit of his large experience. Mr. Tweedy asked me to say that the prospects of the company are so favourable that he is not only quite satisfied, but that he has increased his holding by purchasing no less than 13,000 shares. I think the managing director would not have done that unless he saw there was something to be gained in the future. His holding is now something over 16,000 shares, a circumstance which indicates his confidence in the future. I should not be doing my duty if I did not refer to the work of the staff in Roumania. We in England have worked hard, and so has the staff in Roumania. When we commenced working there was practically bare ground; there were no offices, no stables, and none of the organisation which is so necessary for the complete working of what we believe will be a very large business, and it is due very greatly to the energy of Mr. Russell out in Roumania that everything has been got into perfect working order. He has worked hard under trying climatic conditions. I should now be pleased to answer any question before formally moving the resolution.

No questions were put, upon which the Chairman moved the adoption of the report and accounts. Mr. F. C. Hilbery seconded, and the motion was carried unanimously.

Mr. W. H. Plewman moved that the retiring directors (Mr. F. W. Brandreth and Mr. Ryndzunsky) be re-elected, and that the appointment of Mr. J. C. Williamson be confirmed.

Mr. W. Rushton, in seconding the proposition, said he did so with pleasure, because he had been greatly impressed from the first with the way the chairman had handled the meetings and the amount of trouble he had devoted to the interests of the company. He hoped they should long have the pleasure of seeing him occupy the chair at their meetings. He was not acquainted so well with Mr. Ryndzunsky or Mr. Williamson, but he was sure that the chairman was not the one to work with gentlemen who were not of real standing and whom he could not trust thoroughly.

The resolution was carried unanimously.

Mr. W. Rushton, in moving the reappointment of Messrs. Fookes, Hickman and Co. as auditors, suggested that as Mr. Tweedy was not present the chairman might give them some details as to how the proposition was going on. They should be glad if Mr. Brandreth could give them further encouragement, and also mention how matters stood with regard to the Central Co.

The motion was seconded by Mr. Plewman and carried.

The Chairman said, with regard to Mr. Rushton's inquiry that there were eight producing wells, and six under construction—Nos. 2, 5, 11, 13, 14, 15. These wells would require an expenditure of £2,640 before coming into production, and giving a favourable return. With regard to the new wells, they proposed to spend £14,520 on them. That would cover the cost of ten new wells, and they should give them a very handsome return on the capital. The total estimate, therefore, came to £17,160 for the six wells under construction and the ten new ones, they proposed to spend on reservoirs £1,000, and on rigs £3,140. The arrangement with the Central Co. had been practically settled. The Central Co. would work hand in hand with the Anglo-Roumanian, and there would be a great saving to both companies in many ways. That, he thought, pretty well explained the present position.

A vote of thanks to the Chairman concluded the proceedings.

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THE SHIPMENTS INTO VARIOUS PORTS.

The following table gives the details of the shipments into the various ports of the United Kingdom during April of petroleum and petroleum products. The total quantity imported for the month amounted to 27,315,560 gallons.

The details are as under:—

Port.	Illuminating.	Lubricating.	Residuals.	Gas Oil. (Solar.)	Benzine.	Fuel Oil.	Other Descriptions.
Aberdeen	2,050	4,200	—	—	—	—	—
Barrow	655,630	—	—	—	567,110	—	—
Belfast	1,000,000	270	—	—	—	—	—
Bristol	—	158,010	—	—	—	—	160
Cardiff	—	460	—	—	—	—	—
Cork	—	40	—	—	—	—	—
Dover	—	210	—	—	—	—	—
Dublin	893,870	40	—	—	—	—	—
Dundee	790	2,550	—	—	—	—	—
Glasgow	—	202,550	—	—	—	—	—
Gloucester	—	1,520	—	—	—	—	—
Grangemouth	21,000	8,480	—	—	—	—	—
Grimsby	—	4,150	—	—	—	—	—
Harwich	—	840	—	—	—	—	—
Hull	—	181,640	—	—	—	—	—
Leith	20,170	30,370	—	—	—	—	—
Limerick	808,000	—	—	—	—	—	—
Liverpool	2,050	1,795,450	—	290	50,000	—	13,180
London	8,058,490	999,630	—	1,488,840	1,911,500	488,860	—
Manchester	3,280,120	2,256,700	—	1,374,000	—	931,250	26,120
Newcastle	2,000	5,400	—	—	—	—	—
North Shields	—	200	—	—	—	—	—
Southampton	—	16,870	—	—	—	—	—
Swansea	—	500	—	—	—	—	—
Totals	14,744,170	5,670,080	—	2,863,130	2,528,610	1,420,110	39,460

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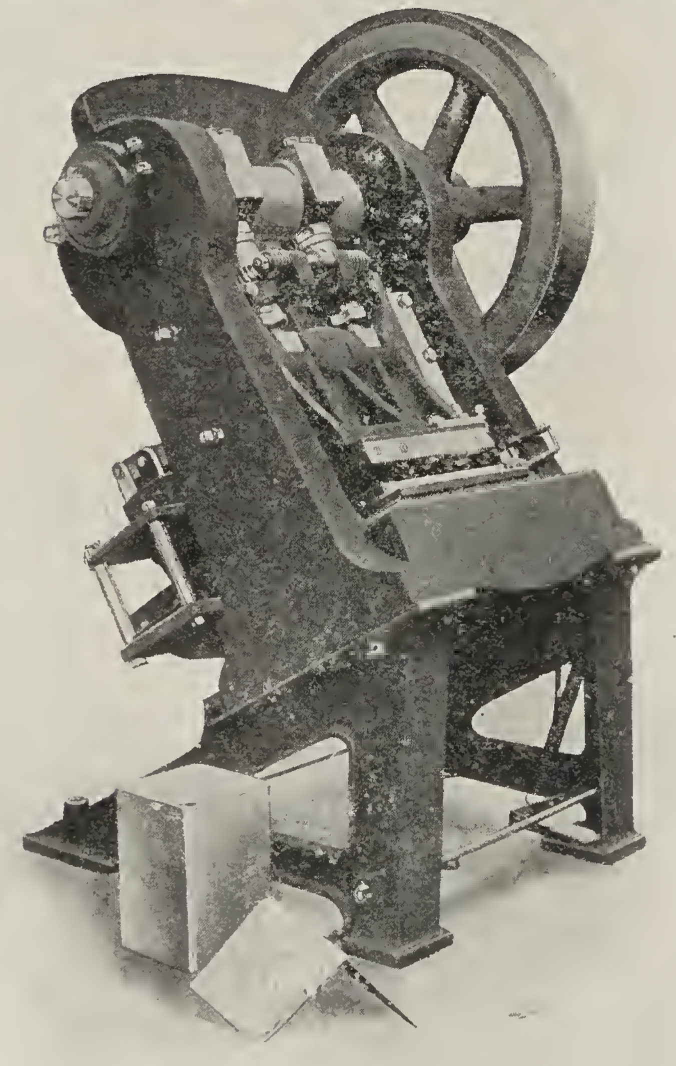

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THE WHITE OIL OF GROSNY.

(Specially Written for the "Review.")

By PROF. I. N. STREEZHOFF,
Secretary of the Tersky Naphtha Association.

In the fourth issue of "The Works of the Tersk Section of the Imperial Russian Technical Society" for 1909, in the article, "The Utilization of the Natural Gas from the Boreholes," I particularly wrote of borehole No. 10, on plot No. 11, of the Tcheleken-Daghestan Co. in the Grosny region. This borehole was drilled to the sixth stratum, and gave off a fairly strong current of natural gas, which was conducted through the gas pipe to the boilers, and used as fuel.

When this borehole reached the upper part of the sixth stratum, natural gas was issuing in large quantities, and on the sides of the casing appeared drops of a colourless and clear fluid, resembling water. It gave one the impression as if the casing were "sweating," as a glass or metallic article would sweat when brought from a cold place into a warm room.

After this the sixth stratum was pierced, and exploitation established; but crude oil was found in very small quantities, whereas natural gas was still issuing regularly, although in smaller quantities. Henceforth the natural gas was directed into the gas pipe, and at the mouth of the borehole the gas pipe was provided with a special "separator" to obtain the clear fluid, which was forming on the sides of the lining tubes.

This separator had the appearance of a small iron reservoir, and was provided with a tap at the bottom and an iron sheet in the middle, so as to collect the drops of this fluid on the inner walls of the reservoir, and on the iron sheet, down which they would run to the bottom of the reservoir, and from which the fluid could then periodically be drawn out through the tap. Thus the natural gas, on issuing from the borehole, would get straight into the reservoir, and from there into the gas pipe. After the installation of this reservoir, it was found that about 20 lbs. of this clear fluid collected daily in same, which was then put into barrels. There was no doubt that this was a special light clear oil, or a mixture of light fractions of oil, which were carried out of the borehole by the natural gas, and collected in the reservoir.

The fluid was analysed at the laboratory of the Grosny station of the Vladikavkas Railway, and the result of the analysis made, on the 20th January this year, by engineer S. A. Zadokhlin and the laborant V. A. Rymkevitch, is as follows:—

Specific gravity—0·724.

The fluid was subjected to distillation with the following result:—

	Per Cent.	Specific Gravity.
Up to 50° C.	1·5	—
50° to 80° C.	12·6	0·6876
80° to 100° C.	41·8	0·7207
100° to 120° C.	34·4	0·7385
The remainder	8·9	0·7567 to point of ignition 9·5° C.

Consequently this fluid is, so to say, a mixture of benzines. At the same time it is a natural substance, and not a product obtained from the refining of crude oil. This fluid exudes from the borehole in a natural way and collects in the reservoir, and to obtain it no artificial distillation or other means are applied to refine it from the crude oil. The fluid is a natural oil, but an oil of a different quality from the other oils of the Grosny region. It is the so-called white Grosny oil.

To a certain extent it resembles the white Surakhany oil, but the quality of the white Surakhany oil is of a lower grade for all practical purposes. The Surakhany oil has a specific gravity of 0·780—0·788, whereas the white Grosny oil has a specific gravity of 0·724.

The Surakhany oil is of a brownish yellow colour, whereas the white Grosny oil is perfectly light, and is a transparent and colourless fluid, resembling pure water.

The Surakhany oil separates in the average 25 to 35 per cent. oil fractions, the boiling point of which is 130° C.—that is to say, benzines of 0·760 specific gravity. The white Grosny oil consists entirely of light fractions, of a specific gravity below 0·757, and contains a large proportion of fractions, the boiling point of which is 80° and 100°, and they are of a specific gravity of 0·688 and 0·721.

The Surakhany oil contains up to 60 per cent. of heavier fractions, yielding kerosene of a specific gravity of 0·795 to 0·797. The white Grosny oil does not contain any of these heavy fractions, nor does it contain any fractions yielding mazout, while it is also free of any tar-like substances. Consequently the white Grosny oil is a natural benzine.

Let us now examine the geological conditions of the district where this white oil is found.

Besides borehole No. 10, on the same plot, two other boreholes (Nos. 3 and 15) were sunk to the depth of the six stratum, and both of them yielded at this depth very little crude oil, but a considerable quantity of natural gas. These three boreholes—namely, Nos. 10, 3, and 15—are situated close to one another, being about 27 and 41 sagenes between. This exact spot is situated in the Mamakaevsky region, in the central part of the Grosny oil fields, near the axis of the anticlinal fold, and at the beginning of its southern dip. Borehole No. 3 is situated almost on the axis, and only at a distance of three sagenes to the south of it; borehole No. 15 is 31 sagenes distant to the south of the axis, and borehole No. 10 50 sagenes to the south of the axis. These distances proved insufficient for the purpose of obtaining a good yield of crude oil from the sixth stratum, because the sixth stratum yields a good output only from such boreholes, which have been started on the surface at a more or less greater distance from the anticlinal axis. The reason of this I have explained in the following articles: "The Section of Layers of the Central Part of the Grosny Oil Fields," in Notes of the Caucasian Section of the Imperial Geological Society, vol. XXV., 1906; and "The Formation of the Grosny Beds," in *Mining Journal*, No 3, for 1905, and in others.

Thus, quite in accord with what I wrote on previous occasions, it proved that the farther the borehole is situated to the south of the axis, the greater is the yield from the sixth stratum, and from the results obtained from the sinking of the wells to the depth of the sixth stratum on one and the same oil field, the following table can be drawn up:—

	The distance to the south from the anticlinal axis.	The yield from the sixth stratum, in poods per day.
Borehole No. 3	3 sagenes	60
,, ,, 15	31 ,,	100
,, ,, 10	50 ,,	200
,, ,, 13	118 ,,	2,000

As regards natural gas, all these boreholes gave off and still continue to give off considerable quantities, but borehole No. 10 gives off a larger quantity than boreholes Nos. 3 and 15.

The natural gas from boreholes Nos. 3 and 15 was also conducted into the gas pipe, and from these boreholes white oil was also obtained similar to that from borehole No. 10, and in about the same quantities, or slightly less. Borehole No. 13 has not yet been connected with the gas pipe.

Thus there is the inference that the geological conditions of all three boreholes are of a similar nature.

I conclude that this white oil originates from the sixth stratum, which in this place is very poor in crude oil, but rich in natural gas. In the vicinity of the anticlinal axis this is more a natural gas bearing stratum than a crude oil bearing one. So, for instance, in respect to borehole No. 3, we can say that scarcely any crude oil has been obtained from the same, and that the 60 poods which were gained came from the upper strata, and run down the sides of the borehole. At the same time, as was noticed while sinking borehole No. 10, natural gas is chiefly contained in the upper smaller layers of the sixth stratum, and crude oil a little lower.

The above-mentioned sixth stratum belongs to the Spirialis beds of the Mediterranean age of the tertiary system. It is formed by several layers of grey, greenish-grey, dark-grey and black sandstone, which are separated from one another by thin layers of dark-grey and greenish-grey sandclay; in the clay and also in the sandstone, fractions of a black substance are found, which resemble asphalt. Above and below the stratum large masses of grey, dark-grey and black shale are found. In the clay, almost immediately above the stratum, a thin small layer of hard brown marl is found. The thickness of the sixth stratum, inclusive of all its layers of sandstone, reaches up to 10 sagenes.

Up to the present a seventh stratum (I take only the chief strata, though there are several strata of secondary importance which are situated between the chief strata and above them) has been found under the sixth, but I am convinced that under the seventh there are other strata, which are rich in oil, but which, so far, have not been reached.

Part of the six stratum, near the axis of the fold, is very much compressed and dislocated by techtonic processes. From this part of the stratum the crude oil was forced out into other parts of the stratum, more porous and less disturbed parts. Part of the crude oil from the sixth stratum, near the axis, was also forced into higher strata—for instance, into the fifth, which was in former years near the axis considerably richer than the sixth stratum, but which is already exhausted by borings in the central part of the oil fields. A number of longitudinal faults near the northern dip of the fold divides the sixth stratum into separate districts. These faults serve at the same time as natural gas conduits from the lower strata.

Thus there is a radical difference in the conditions of the place of origin of the Surakhany and Grosny white oil in this, that the former oil lies much higher above the strata containing ordinary dark crude oil, in special upper and younger strata, which do not contain dark crude oil, whereas the white Grosny oil has been found so far only in the lower oil-bearing strata of Grosny, and in the lower part of them.

However, I am of the opinion that white oil must also be present in the upper strata of Grosny. Doubtless it was carried up by the natural gas in many boreholes and in various other districts of the Grosny region.

Last year the utilisation of the natural gas from the boreholes was organised in the oil fields of the Kasbeck Syndicate, on plots Nos. 39, 40, and 169. In this case, too, a fair quantity of white oil appeared in the gas pipes and reservoirs, which they call benzine.

In the past a fair number of natural gas fountains were known in Grosny which did not yield any crude oil, and many of these fountains brought doubtless some white oil to the surface, of which no notice was taken; it spread in the air and evaporated. If such a fountain of medium strength were to be shut in into a tube and lead off, I think that by this method a considerable quantity of white oil could be obtained. In former years, during the exploitation of the Mamakaevsky region, strata of natural gas bearing sandstone were met with, and these yielded a considerable quantity of natural gas, but no crude oil.

Such strata are the chief places of origin of the white oil. I personally have observed one natural gas fountain originating from the sandstone stratum which was lying above the fifth crude oil-bearing stratum in borehole No. 9, of plot 13, of the Tcheleken-Daghestan Co., in the Mamakaevsky region. This natural gas fountain started in November, 1908, from the sandstone stratum, at a depth of 183 sagenes 6 feet. The natural gas was issuing with great force, but this did not last long, and on this occasion, too, on the sides of the borehole, drops of white oil were observed. But there was no dark crude oil found in this stratum. The ordinary dark crude oil was found in the fifth stratum, at a depth of 195 sagenes, that is to say, 11 sagenes below the natural gas bearing stratum.

But there is much in common in the way in which both these white oils, the Surakhany and the Grosny white oil, originate. The Surakhany oil is a filter distillation of the dark crude oil, which lies at a greater depth. In Surakhany, the ordinary dark crude oil, which lies at a depth of 300 to 400 sagenes, moved together with the natural gas along the faults upwards, and was thus subjected to a purification, because it had to pass through layers of porous limestone and sandstone, marl, etc.; after this, the purified crude oil settled in the ordinary rock, near the surface.

Consequently, the white Surakhany oil is a natural product of the sublimation and filtration of the ordinary dark crude oil. The white Grosny oil is more a product of sublimation than filtration.

In respect to its place of origin, the white Grosny oil lies in the same series of layers as the dark crude oil, but one can assume that this white oil originates together with the natural gases from greater depths. The place of origin of the white oil must be referred to the most dislocated zone of the Grosny region. At the same time the white oil comes from strata, which are either poor in dark crude oil or do not at all contain any. Presumably the white oil and the natural gases rose from below. But where did they come from? There are two ways in which their appearance can be explained.

In the first place they could have moved along the sixth stratum from the southern dip, and from the zone of this stratum which is very rich in crude oil. The sixth stratum is very rich in crude oil in the southern dip at a distance of 115 to 120 and more sagenes from the axis. In this zone of the southern dip, the sixth stratum contains a considerable quantity of dark crude oil, which is under great pressure. The same sixth stratum, near the axis is very poor in crude oil, and is nothing but a natural gas bearing stratum. The gases rose along the stratum, that is to say, the sandstone, towards the anticlinal axis, carrying away with them the light fractions of the dark crude oil, and accumulated together with the white oil in the region of the anticlinal vault. In several places the stratum was interrupted by faults, and the natural gases had to make their way along these faults from one district of the stratum to another and higher one of the same stratum. On their way they already moved partially between clays and marls, through narrow fissures, and along the faults of these strata. Here a certain filtration took place, but not to the same extent as in Surakhany. The process consisted, however, chiefly in the sublimation of the light fractions of dark crude oil together with hydrocarbon gases. The sublimation was due to temperature and pressure. The temperature in Grosny rises with the depth. In deep boreholes a very high temperature is observed, for instance 50° C., and even more. The deeper parts of the sixth stratum had a high temperature, a higher one than was observed in the part nearer the anticlinal axis. To this high temperature is to be attributed the sublimation of the lighter fractions of the crude oil to the upper parts of the stratum. It is quite natural that with the depth the temperature should increase, and this is observed not only in Grosny, but all over the world. In Grosny, however, the rise in the temperature does not quite accord with the average geothermic gradient (that is to say, 30 or 33 metres to 1° C.), but develops somewhat quicker owing to the small heat conductive properties of the rock in Grosny, and also on account of the chemical reactions, which develop in the strata. In the crude oil bearing strata the chemical reactions take place in the centre of the hydrocarbons, and in the joint action of same with the surrounding substances, viz., pyrites, gypsum, limestone, etc. Many chemical reactions take also place in layers situated above the crude oil bearing layers.

It is known that there are series of watersand and clay layers of the Sarmatian age above the oil-bearing layers. Amongst them are thick deposits of sandstone, which contain a large quantity of mineralised water. In this sandstone and clays pyrites are often met with. The upper part of this sandstone contains heavy crude oil, but in small quantities. The above-mentioned layers in the Mamakaevsky valley, and also in other places produced hot sulphurous water. Of the chief chemical reactions, which occur in the strata of the Sarmatian age, may be mentioned, for instance, the following:—The water in presence of pyrites forms sulphuric acid and acts upon the lime of the clays and marls, separating the carbonic acid and turning the limestone into gypsum. Therefore the clay which is contained in the rock, which is lying in the upper part of the crude oil bearing strata, and also above same, that is to say, in the layers of the Sarmatian age, does not contain any lime, and does not boil with acid, but contains a large quantity of veins and small deposits of gypsum.

But the clays of the Akchagil (Maeotian) age, which are lying much higher, contain already much lime. The pyrites of the Sarmatian layers in their turn are the product of the decomposition of the original organic matters, that is to say, the dead bodies of fish, mollusks, sea weeds, etc., from which subsequently originated crude oil. This joint action of the organic matters, sea salts, water, lime and other substances, which were contained in the salts of the Mediterranean and Sarmatian ages, was followed by a series of chemical reactions, which raised the temperature of the above-mentioned layers. Therefore, in the Grosny region the temperature rises with the depth quicker than the geothermic gradient, and at a depth of 350 to 400 sagenes there is already a fairly high temperature. Take, for instance, an oil bearing stratum dipping to the south, and you will find that the southern or the deeper part of same has a higher temperature than the northern part, which is nearer the surface. Such a difference in the temperature produces a difference in the crude oil in the different parts of the stratum. The high temperature of the deeper central and southern parts of the stratum will sublimate from the crude oil, which they contain, the lighter fractions into the higher situated northern part of the stratum, where natural gas and light oil will collect. In following up this investigation, we must arrive at the following conclusion: the crude oil which originally formed in the Grosny layers contained doubtless an equal proportion of paraffin, but the paraffin could preserve itself only in a crude oil of high temperature, when, however, the temperature decreased, the paraffin was, so to say, frozen from the crude oil, and settled in the rock, that is to say in the surrounding sandstone and clay. Therefore, in layers which are nearer the surface, that is to say, in layers which were worked during the ten first years in the Grosny region, no paraffinous oils were met with. At that time work was carried on at a comparatively shallow depth, where the temperature was comparatively low. In latter years, however, people have gone to a greater depth, and in the western region of the oil fields, where the layers are at a still greater depth, a hot paraffinous oil was found.

By way of comparing the sections of the bore holes, I have shewn that the stratum from which paraffinous oil is obtained in the western region is the same stratum, which in the central part of the Grosny oil fields lies nearer the surface, and does not contain in this part any paraffinous oil, but yields only ordinary crude oil. Thus the same stratum contains ordinary crude oil at a shallower depth, and paraffinous oil at a greater depth. It goes without saying, that at an earlier period all oils were paraffinous, but in the higher and colder parts of the stratum they lost their paraffinous properties, which preserved themselves only in the hot oil, in the deeper parts of the same stratum.

Therefore, returning to the above-examined stratum, and going along same farther to the south, that is to say, deeper, and into the sphere of a higher temperature, we are certain to come across paraffinous oil. In the central part of the Grosny oil fields this will probably be at a distance of 200 sagenes from the anticlinal axis.

At the same time the proportion of the lighter fractions diminishes with the depth (or by moving southwards), because the high temperature drives these light fractions upwards. This fully accords with the observations made in the deep layers in the western region, where the paraffinous oil contained very little benzine, much less, indeed, than the crude oil from the same stratum in the centre part of the oil fields. This is proved by many analyses, as, for instance, by the analysis made by Prof. K. V. Kharitchkoff (see No. 16 of the *Neftianoe Dielo*, 1909). The crude oil from borehole No. 1 on Plot No. 91, in the southern dip of the western region, taken from a depth of 310 sagenes, proved to contain only 1·2 per cent. of fractions, the boiling point of which was 100°, and 27 per cent. of soft paraffin.

Therefore, the stratum which we are examining must contain in the upper parts—natural gases and a light white oil, and more to the south, and at a greater depth—ordinary crude oil of the average Grosny composition; still farther south, and at a still greater depth—paraffinous oil with a very small proportion of benzine. What will be found still farther south, and at a very much greater depth will be the object of further researches.

Speaking generally, we may presume that in one and the same stratum the deeper we go the smaller will be the proportion of benzines, whereas the proportion of lubricating oils will increase.

We have now acquainted ourselves with one of the ways in which the white oil forms. But fully in accordance with this, and dependent on the same natural facts, the formation of the white oil could take place in another way. This oil could not only originate from the sixth stratum, but also from the deeper one, viz., the seventh, and even from the following and deeper ones. The fact is that the region of the anticlinal vault, and the beginning of the northern dip of same, is a region of heavy dislocation, in which a series of longitudinal faults are observed. Along these faults the oil and the gases could have made their way, although with great difficulty, from one stratum into a higher one, and, of course, the white oil, and the natural gases could have got through easier than the dark oil. Here the position does not alter, and the fractionization takes place on the same basis as in the instance described before.

From the incomplete data to hand about the seventh stratum, we may conclude that this stratum is very rich. As it lies already at a considerable depth, where a high temperature must prevail, the light fractions must be sublimated, and their proportion will depend on the state of preservation of the stratum. If this stratum was well shut in by an impervious cover of clay, then the light fractions could have preserved themselves in spite of the high temperature, but if from this stratum faults were leading upwards, and along these certain substances could find their way out, then the first to rise along these faults would be the natural gases, which would carry away the light fractions of the crude oil. In this way we receive a natural sublimation of the white oil from the seventh stratum into the sixth along the faults. The high pressure, which prevails in the seventh stratum, compelled the light oil to percolate through the thinest pores of the broken shistous clays. The distance between the sixth and seventh stratum in the average equals 85 fathoms, which are occupied by masses of dark grey shistous clay with small layers of hard dolomites and marls. The penetration through such a mass, if even along the faults, must have caused a certain filtration. Consequently this way in connection with the sublimation allows us to suppose that a greater filtration took place in this instance than in the one described before.

If the formation of the white oil took place in the just described way, then we come to the conclusion of the richness of the seventh stratum.

Having described these two ways, I think, however, that nature did not follow these two only, but that white oil was also originating from the fifth upper strata. From every oil bearing stratum, which contained benzineous oil, white oil was sublimated and rose upwards. Closer examination of the upper layers will prove that this oil is also to be found in the sphere of the fifth first strata, and even in layers above the first oil bearing stratum, and the more so, as above the series of oil bearing strata, near the axis of the fold, in the centre of the oil fields, natural gas bearing sandstone was met with, which, however, contained no crude oil. In such natural gas bearing sandstone one could also search for white oil.

However, we must not expect a large quantity of white oil for practical purposes from the Grosny oil fields. White oil is generally obtained in small quantities. We know, by experience, that from plot No. 11 about 1½ poods can be obtained daily from three boreholes. During the summer, of course, there will be very little of it, because it evaporates and flows out together with the natural gas. But if at the mouth of each borehole which is issuing natural gas good tanks are put up to collect the white oil, a fair quantity would accumulate during the winter.

However, in the event of any of the boreholes emitting a strong natural gas, and if this gas is shut in into a pipe, and passed through a separator for white oil, I am of the opinion, that from such a borehole several poods of white oil could be obtained daily. If, however, the natural gas does not issue from the borehole in a natural way, but has to be pumped out by exhausters, no white oil whatever collects in the separators, because it is blown out by the air, which is caught by the exhauster together with the natural gas at the mouth of the borehole. In this case the white oil is evaporated by the current of air and natural gas, and is burned in the boiler house.

The industrial value of the white oil is very great. It can replace benzine, for from this oil very light benzine can be obtained with a specific gravity of 0·688, and it certainly pays to collect this oil, if even in small quantities.

The American Oil Market.

New York, Week ended May 7th.

The week's development in the Eastern petroleum fields present little of noteworthy interest, and there seems to have been nothing to mark any change in the general character of operations or results. Nearly all of the fields recorded fewer completions, says the *Oil, Paint and Drug Reporter*, and there was a more than proportionate decrease in new production. An exception in the latter respect was furnished in the showing of the Southeastern Ohio fields, from which were recorded 2,224 barrels daily from 25 successful wells. This exceptional return was chiefly due to the results achieved in Fairfield county, 17 wells coming in as producers to the extent of 1,892 barrels as the daily average. Most of the completions in the county were the outcome of town lot developments around Bremen. In the same formation extending into Perry county a 125-barrel well was drilled during the week. In West Virginia a decrease in completions but a slight gain in new production were recorded. The best return of the week was a 129-barrel well in Ritchie county. The deep sand territory of Eagle district, Harrison county, was the scene of another good producer, which was credited with 75 barrels the first 36 hours. Development work in the Shinnston pool furnishes nothing of a more encouraging character. Nearly all of the work is now within the defined limits, where dusters are the rule. The capacity of the producing wells is in marked contrast with that of the earlier completions. Lincoln county continues the centre of considerable new work within the proven area. This week's returns from Illinois shew a substantial decrease in new production, almost one-half that of the former week, although but six fewer completions were recorded. Operations outside of the fields of Lawrence, Crawford and Clark counties have failed to develop any prospects for the opening of new districts. The April report on the Illinois fields noted a gain of 29 completions and an increase of 1,667 barrels of new daily production. The average per successful well was raised to 62·58 barrels from 56½ barrels in March. Our Mid-Continent correspondent, reviewing field conditions during April, reports the greatest number of completions for the month in the history of the field. This record comprises 520 wells, the nearest approach to which was the drilling of 500 wells in October, 1907. The increase last month was general over the field, and is attributed to the increase in the crude market in March. California advices indicate the same degree of drilling activity, which does not seem to have been affected by the probabilities of an over-production, and the April report is expected to shew a considerable gain in new work in many of the fields, Sunset-Midway and Coalinga being well in the lead. Operations in the former field are being prosecuted with feverish rush, and the output continues far in excess of the transportation facilities. The famous Lakeview gusher at Sunset-Midway is still credited with 40,000 barrels a day, and if the limitation upon its output by the size of the casing could be removed it is believed that the well would establish a much higher record. Considerable capital in California oil is being invested by British concerns, their activity being explained by the fact that the British Government, recognising the advantages of fuel oil for the navy, is anxious to be assured of sufficient production to meet these requirements, neither the home country or any of its possessions furnishing anything like necessary amount.

REFINED AND PRODUCTS.—No developments to distinguish the course of the local market for refined have been noted during the interval, and the general conditions remain practically as indicated in late reports. The outlet for domestic account has involved moderate proportions incidental to the season, and reports from the more important centres abroad have continued to indicate rather quiet conditions. Competition remains keen for the foreign trade, but without late development so far as the domestic product is concerned. Our record of clearances for the week shews a total of 6,094,055 gallons, against 5,730,090 gallons, noted formerly. Chartering for forward account has been less active during the interval, the only engagements reported being 150,000 cases for the Philippines, July-August from Philadelphia, and 165,000 or 180,000 cases for China.

CLOSING QUOTATIONS.

CRUDE AT THE WELLS.

The quotations for oil represented by credit balances were :—

	Week ended May 7. 1909.	Week ended May 7. 1910.
Pennsylvania	$1·73	$1·35
North Lima	0·99	0·84
South Lima	0·94	0·79
Indiana	0·94	0·79
Illinois, heavy, below 30 deg. ..	0·60	0 52
Kansas and Indian Ter., 30 deg. and above	0·41	0·38
Heavy	0·28	0·30
Humble, Tex.	0·54	0·75
Saratoga	0·53	0·75
Sour Lake, Tex.	0·53	0·77
Jennings, La.	0·54	0·54
CANADIAN OIL :—		
Petrolia	1·39	1·24
Oil Springs, less pipeage	1·46	1·31

REFINED—FOR EXPORT.

In cents.	Week ended May 7. S.W. 110 test.	Week ended May 7. W.W. 150 test.
Barrels, cargo .. .. per gal.	7·75	@ 9·25
Philadelphia	7·75	@ 9·25
Bulk, New York	4·25	@ 5·75
Bulk, Philadelphia	4·25	@ 5·75
Cases, New York	10·15	@10·65
Cases Philadelphia	10 15	@10·65

REFINED IN CASES—110 FIRE TEST.

	Week ended April 30. 1910.	Week ended May 7. 1910.
3,000 to 10,000	10·30	10·30
1,000 to 3,000	10·35	10·35

REFINED—JOBBING LOTS.

In barrels, pkgs. included.

	Week ended April 30.	Week ended May 7.
130 fire test, S.W.	11¼	11¼
150 fire test, W.W.	11¾	11¾
In bulk from tanks	8½	8½

PENNSYLVANIAN OIL RUNS from April 28th to May 4th, were :—April 28th, 158,056* ; April 29th and 30th, 420,768* ; May 1st, 44,812* ; May 2nd, 83,577* ; May 3rd, 189,608* ; May 4th, 188,229*.

THE DELIVERIES OF PENNSYLVANIAN OIL from April 29th to May 5th were :—April 29th, 255,530 ; April 30th, 276,145* ; May 1st, 130,444 ; May 2nd, 167,351 ; May 3rd, 168,997 ; May 4th, 226,404* ; May 5th, 246,951.* * Includes Illinois Oil.

EXPORT STATISTICS.

The total exports from the port of New York and from the United States have been :—

	Week.	Year.	Gallons. 1909.
Refined	6,094,055	182,075,895	195,301,330
Crude	1,218,090	6,897,655	13,092,700
Naphtha	1,134,705	23,315,985	14,576,070
Residuum ..	2,127,500	6,282,250	202,220

CLEARANCES FOR THE WEEK.

During the week ended May 6th and since Jan. 1, the clearances of petroleum, in gallons, from the port of New York, were as follows :—

From New York, week ended May 6th ..	22,420,084
Total from New York, from Jan. 1st, 1910 ..	249,766,265
Same period last year	273,495,474
Decrease	23,729,209
From United States, week ended May 6th ..	22,020 084
Total from United States, since Jan. 1st, 1910	387,175,841
Same period last year	462,595,226
Decrease	75,419,385

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The "Review" Shipping List.

May 19, 1910.

(*The following abbreviations are used in this table:*—L. Left; P. Passed; Arr. Arrived; Sp. Spoken; Tr. Trading.)
Anglo-American Co.'s vessels marked thus (□): the Anglo-Saxon Co.'s tankers thus (*): and Messrs. Lane and Macandrew's thus (†).

Vessel.	From	For	Latest Date and Position.
ALCHYMIST	Algiers	Selzaete	At Southampton, May 3
ALICE ET ISABELLE (Fr. bq.)	New York	Rouen	In Port, April 18, laid up
AMERICAN	New York	Antwerp	In Port, May 10
APPALACHEE □	Avonmouth	Philadelphia	P. Fastnet, May 9
APSCHERON	Genoa & Kustendje	Batoum	Sd. Kustendje, May 8
ARAL	New York	Marseilles	Arr. April 28
ARAS	Philadelphia	London	P. Del. Break., April 29
ASHTABULA □	Tientsin	San Francisco	Arr. May 11
ASTRAKHAN	Philadelphia	Copenhagen	In Port, May 9
AUGUSTA	Brunsbuttel	Hamburg	In Port, May 10
AUREOLE	Manchester	Tyne	Arr. May 2, in Port, May 3
AZOV	Tyne	Callao	Arr. Mar. 29
BAKU STANDARD	Cardiff	Tyne	In Port, May 10
BALAKANI†	Amsterdam	Naples	L. May 18
BATOUM	Port Arthur (Texas)	Manchester	S. Newport News, April 27
BAYONNE	Savona	New York	Arr. May 11
BEACON LIGHT	Penarth	Philadelphia	Arr. May 7
BLOOMFIELD	Port Arthur (Texas)	Portland (Dor.)	Sd. Norfolk (Va.), May 2
BORJOM	—	—	Tr. b'tw'n Black Sea & Levant
BRILLIANT	Tyne	Philadelphia	P. Dunnet Head, May 3
BRILLIANT (Br. bq.)	—	Bombay	At Philadelphia, April 30
BRITISH SUN	Tyne & Emden	Galveston	P. Lizard, May 10
BROADMAYNE	—	—	In Portland Rds., May 10
BUFFALO	Rotterdam	New York	L. May 1
BULLMOUTH*	Samboe	Adelaide	L. May 3
BULYSSES*	Tientsin	Hong Kong	Arr. May 5
BURGERMEISTER PETERSEN	Philadelphia	Bremerhaven	P. Dunnet Head, May 7
BUYO MARU	Kobe	Hong Kong	Sd. Shimonoseki, April 9
CADILLAC	Rotterdam	New York	Arr. May 8
CALCUTTA (B. b.) □	San Francisco	Yokohama	L. Mar. 17
CAMILLO (Late "Joyo Maru")	Newport	New York	P. Barry Island, May 7
CAPTAIN A. F. LUCAS	Tampa	New York	Arr. Mar. 26, in Port, April 23
CARDIUM*	Soesoe	Europe (via Cape)	Sd. Singapore, April 30
CARPATHIAN†	Avonmouth	Cardiff	Arr. May 14
CAUCASIAN†	Hamburg	New Orleans & Gulf Port	P. Dover, May 14
CHARLOIS	Philadelphia	Amsterdam	P. Lizard, May 12
CHESAPEAKE □	Batavia	New York	Arr. May 6
CHESTER	Kustendje	Antwerp	Cld. Constant'ple, May 6
CHEYENNE	New York	Savona	Sd. Algiers, May 7
CITY OF EVERETT	New York	Quebec	Arr. about May 8
CIUDAD DE REUS	Batoum	Rouen	Arr. May 6
CLAM*	Palembang	Balekpappan	Arr. May 3
CLEARFIELD	Rouen	Tyne	In Port, May 10
CONCH*	New York	Bombay	Sd. Port Natal, April 24
CONRAD MOHR	Grangem'uth	Philadelphia	P. Dunnet Head, May 8
COWRIE*	Shanghai	Singapore	L. May 3
CUYAHOGA □	Bengkalis	U.K.	At Port Natal, about May 10
CYMBELINE	London	Newport	P. Lizard, May 11
CZAR NICOLAI II.	Hamburg	Batoum	Arr. May 8
DAGHESTAN	Tyne	Philadelphia	L. May 9
DAKOTAH □	San Francisco	Karatzu	L. April 27
DANUBIAN†	Amsterdam	Port Arthur (Texas)	P. Scilly, May 6
DELAWARE □	Liverpool	New York	Arr. May 11
DERBENT	Batoum	Antwerp	P. Gibraltar, May 9
DEUTSCHLAND	New York	Rotterdam	L. May 8
DIAMANT	Hamburg	Philadelphia	P. Lizard, May 2
EDWARD DAWSON	Hull	Antilla	P. Prawle Pt., April 10
EL LOBO	San Francisco	Payta	L. April 26
ELAX*	Hankow	Palembang	L. April 28
ELISE MARIE	Philadelphia	Flushing	P. Lizard, May 11
ENERGIE	Bremerhaven	Philadelphia	Off the Wight, May 11
ERIVAN	Tyne	Batoum	P. Constant'ple, May 10
EUPLECTELA*	Freshwater	Suez	L. May 1
EXCELSIOR	New York	Rotterdam	L. May 5
FRANCE MARIE (French bq.)	Santander	Marseilles	In Port, May 10
GEESTEMUNDE	New York	Swinemunde	L. April 28
GENESSE □	New York	Vera Cruz	Arr. April 21
GEORGIAN PRINCE	Vallo	Tyne	In Port, May 10
GOLDMOUTH*	Tyne	Aroe Bay	P. Beachy Head, April 17
GUTHEIL	Philadelphia	Cuba	L. May 6
H. C. HENRY	Tees	Seattle	At Eagle Harb'r, April 28
HAINAUT (Du. sh.)	Antwerp	New York	Off the Wight, May 3
HARRY WADSWORTH	New Orleans	Port Arthur (Texas)	L. May 2
HELIOS	Philadelphia	Nordenhamn	At Bremerhaven, May 9
HERMIONE	Balekpappan	Melbourne	L. May 11
HESPERUS	New York	Hamburg	Arr. May 1, in Port, May 10
HOTHAM NEWTON	Hull	Batoum	Cld. Constant'ple, May 2
HYRCANIA	London	Batoum	P. Gibraltar, May 5
IOANNIS COUTZIS	Batoum	Copenhagen	P. Sagres,, May 9
IROQUOIS □ (towing barge Navahoe)	London	New York	P. Southend, May 11
J. A. CHANSLOR	Newport Nws.	San Francisco	Sp. Mar. 28, 1,328 miles S.E. of Sandy Hook
J. B. AUG. KESSLER	Rotterdam	Kustendje	P. Constant'ple, May 9
JAMES BRAND	Portland (Dorset)	Tyne	In Port, May 10
JULES HENRI (French bq.)	Marseilles	New York	P. Gibraltar, April 18
KIYO MARU	Kobe	Salina Cruz	Arr. Ap. 16 & Sd. April 17, Callao
KURA	Barry	Kustendje	P. Sagres, May 5
LA CAMPINE	Philadelphia	Antwerp	P. Dover, May 11
LA FLANDRE	Ghent	Antwerp	In Port, May 10
LA HESBAYE	Baltimore	Dover	P. Cape Henry, May 1
LACKAWANNA □	Philadelphia	Manchester	P. Del. Break., April 28
LE COQ†	Bordeaux	New York	P. Lacoubre, May 5
LOUTSCH	Novorossisk	Libau	Cld. Constant'ple, April 29
LUCERNA	Tyne	Novorossisk	In Port, May 3
LUCIGEN	Trial Trip	Tyne	In Port, May 10, laid up
LUCILINE†	Algiers	Rouen	L. May 16
LUMEN	Rouen	Tyne	In Port, May 10
LUTETIAN†	Rouen	Novorossisk	P. Ushant, May 13
LUX†	New York	Alicante	Arr. May 14
MANHATTAN	Newport N'ws	San Francisco	In James River, April 18
MANNHEIM	Philadelphia	Hamburg	In Port, May 10
MARGARETHA	New York	Genoa	Arr. May 2
METEOR	Vladivostock & Hamburg	Antwerp	Arr. May 10
MEXICAN PRINCE	Tyne	Havana	Arr. May 4 & Sd. May 6, U.K.
MINA BREA	Caleta Buena	Callao	In Port, Mar. 29
MINHLA	—	Halifax	Arr. May 3
MIRA	Calais	Blyth	In Port, May 10, laid up

Vessel.	From.	For.	Latest Date and Position.
MUREX*	Balekpappan	Singapore	Arr. May 7
NARRAGANSETT	London	New York	Arr. May 10
NEW YORK □	Rotterdam	New York	Arr. May 5
NIAGARA	New York	Hankow	L. May 8
OBERON	P. San Luis	Panama	L. April 20
OCEAN	Antwerp	Rotterdam	In Port, May 10
OILFIELD	Rouen	Tyne	In Port, May 10
ORIFLAMME†	Tyne	Kustendje	Arr. May 16
OTTAWA □	Avonmouth	Sunderland	Arr. May 9, in Port, May 10
OURAL	Antwerp	Batoum	P. Tarifa, May 5
PATELLA*	San Francisco & Hong Kong	Saigon	Arr. May 9
PAUL PAIX	New York	Calais	L. April 20
PAULA	Stettin	Tyne & New York	Sd. Tyne, Mar. 11
PECTAN	Tocopilla	San Francisco	Arr. April 19, in Port, April 28
PENNOIL	Rotterdam	Philadelphia	? P. Scilly, May 9
PETROLEINE	Blyth	Philadelphia	P. Dunnet Head, April 27
PETROLEUM	—	—	Engaged on Government business
PHOEBUS	Hamburg	New York	Arr. May 9
PINNA†	Hull	New York	P. Lizard, May 7
POTOMAC □	Philadelphia & Dublin	Liverpool	Arr. May 11
PROGRESSO ARGENTINA (Ar. bq.)	Port Arthur (Texas)	Buenos Ayres	Arr. Dec. 10, dismantled
PROMETHEUS	New York	Hamburg	L. May 10
PRUDENTIA	Hull	New Orleans	L. May 11
PURELIGHT	Hamburg	Philadelphia	Arr. May 6
QUEVILLY (Fr. bq.)	Rouen	Havre	Arr. Nov. 20, in Port, May 10
RENDOVA (Br. bq.)	Sydney	Liverpool	L. May 2
RION	Penarth	Batoum	P. Barry Island, May 11
ROCK LIGHT†	Middlesbro'	Braila	P. Sulina, May 17
ROMANY*	Samboe	Barrow	P. Oitavos, May 10
ROTTERDAM	New York & Amsterdam	Rotterdam	In Port, May 10
ROUMANIAN†	London	Port Arthur (Texas)	P. Lizard, April 30
RUSSIAN PRINCE	Avonmouth	Tyne	L. May 11
SALAHADJI*	Samboe	Balekpappan	L. May 3
SAN ANTONIO	Philadelphia	London	L. May 2
SAN IGNACIO DE LOYOLA (Sp. bq.)	New York	Pasages	Arr. April 19
SANTA MARIA	P. San Luis	San Francisco	L. April 17
SANTA RITA	San Francisco	Kahului	L. April 18
SARANAC □	Philadelphia	Calcutta	Arr. about May 9
SAXOLEINE	Tyne	Kustendje	P. Sagres, May 6
SEMINOLE □	Karatzu	San Francisco	Arr. May 10
SERVIAN†	Philadelphia	Hamburg	L. May 14
SIRIUS (Ger.)	Philadelphia	Rotterdam	L. May 8
SNOWFLAKE	Rouen	Penarth	P. Barry Island, May 12
SOYO MARU	Yokohama	Hong Kong	Sd. Shimonoseki, April 15
SPONDILUS*	Tyne	Singapore	P. Perim, April 25
STANDARD	Hamburg	Philadelphia	Arr. May 9
STROMBUS*	Samboe	Channel	L. April 24
SULTAN VAN LANGKAT*	Swatow	Samboe	Arr. May 8
SUNLIGHT (Br. bq.)	Boston	Macoris	L. May 4
SURAM	Blyth	Batoum	Arr. May 3
SUWANEE □	New York	Tampico	L. April 30
SVIET	Marseilles	Novorossisk	Cld. Constant'ple, Mar. 30
TAMARAC □	London	New York	Arr. May 1
TELENA*	Tyne	Philadelphia	P. Lizard, May 5
TEREK†	Kustendje	Hull & Sunderland	P. Dungeness, May 17
TEXAS	Smyrna	Lemnos	Sd. Mitylene, April 30
TIFLIS	Tyne	Philadelphia	P. Dunnet Head, April 25
TIOGA □	Liverpool	Kustendje	P. Gibraltar, May 11
TONAWANDA □	London	Jacksonviile	At Newport News, May 8
TRINCULO	San Francisco	Tocopilla	At Port San Luis, Mar. 18
TROCAS*	Shanghai & Bremerhaven	Hamburg	In Port, May 10
TUSCARORA	Karatzu	San Francisco	Arr. May 6
VEDRA	Antwerp	Batoum	P. Gibraltar, May 10/11
VILLE DE DIEPPE (Nor. bq.)	Rouen	Liverpool	In Port, May 11, sold U.K.
VOLUTE*	Balekpappan	Hankow	L. April 30
WASHINGTON	Baltimore	Shanghai	At Colombo, about April 27
WEEHAWKEN	Rotterdam	London	Arr. May 11
WILLKOMMEN	Stettin & Tyne	Philadelphia	P. Dunnet Head, May 4
WINNEBAGO	Calcutta	San Francisco	L. April 16

Latest Market Intelligence.

LONDON OIL MARKET.

Supplied by Messrs. Benjamin & Gee, 31, St. Mary Axe, E.C.

May 19th, 1910.

Refined petroleum is unaltered in price, the current quotations being for:—Russian, 5¾d.; Roumanian, 7d.; American, 6d.-6¼d.; Water White, 7d.-7¼d.

LUBRICATING OILS

are unaltered as follows:—

American pale, £6 10s. to £9 10s.
American dark cylinder, from £7 12s. 6d.
American filtered cylinder, from £10 12s. 6d.
No. 1 Russian, for Spot, £8.

TURPENTINE.

American Turpentine is very firm and may be quoted for Spot 45s., June 44s. 6d., July-August, 43s., July-December, 41s. 3d.

LIVERPOOL OIL MARKET.

May 18th.

Refined oils are quiet, and sellers quote 6d., for Russian, Galician or Roumanian; and 6½d. to 7d. per gallon for American.

LATEST AMERICAN PRICES.

New York, May 18th.

Refined, in cases, is steady at 10·15; Standard White, 7·75; Credit balances, 1·35.

Philadelphia, May 18th.

Standard White is now quoted at 7·75.

GERMANY.

Hamburg, May 17th.

The petroleum market is without any change. American, ·800–6·30 marks; Pennsylvanian, 6·40 marks; Galician, 6·30 marks. Russian and Roumanian not on the market.

RUSSIA.

Baku, May 16th.

The market is somewhat lower. Crude oil is quoted at 14¾-15 copecs per pood spot. Mazout 15-15¾ copecs.

BELGIUM.

Antwerp, May 17th.

The petroleum market is without change. Price of Standard White, spot, 20·50 francs per 100 kilos.

ROUMANIA.

May 16th.

	Francs.
Crude oil from different fields, including pipe line charges, per 100 kgs.	3·50–3·60
Refined oil, exclusive of taxes, ex. refinery	8·10
Residuals in tank waggons, at refinery	3·50–3·60
Paraffin	110–120
Prices for Export.	
Refined oil, f.o.b., per 100 kgs.	6·00
Benzine, sp. gr. 0·710–0·715, f.o.b.	16–17
,, sp. gr. 0·715–0·720 ,,	14·50–15·50
,, sp. gr. 0·730–0·740 ,,	10–11
,, sp. gr. 0·745–0.755 ,,	9–10
Lubricating, horticultural	33
,, prime	36
,, extra	42
,, Royal, “ Steaua Romana ”	46
Imperial “ Aurora ”	46
Vacuum-Ideal “ Vega ”	52

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IMPORTS of PETROLEUM into UNITED KINGDOM

Specially prepared for this Journal by the Custom House.

FOR THE WEEK ENDED MAY 9TH, 1910—

Date.	Port and Importers.	Description.	No. of Gals.	Port Whence.
May	LONDON—			
3	Lub. and Fuel Oils Co. (Daghestan)	Lub.	274,890	Batoum
3	,,	,,	4,100	Philadel.
3	Fielder, Hickman and Co.	,,	13,600	New York
3	Grindley and Co.	,,	6,000	,,
3	M. Record	,,	9,040	Philadel.
3	Perkins and Homer	,,	2,400	,,
3	Juett and Cain	,,	4,800	,,
3	Thames Tug & Lighterage Co.	,,	6,000	,,
3	A. Brown and Co.	,,	2,400	,,
4	Mercantile Lighterage Co.	,,	59,150	New York
4	Anglo-American Oil Co.	,,	41,000	,,
4	G and H. Green	L.Comp.	4,140	,,
4	Worthington and Boler	Lub.	4,400	Philadel.
4	E. Clark	,,	1,280	,,
4	Ragosine and Co.	,,	790	Riga
4	Port of London Authority	,,	2,160	Hamburg
4	Anglo-American Oil Co. (Cymbeline)	Gas	1,600,040	New York
4	Union Lighterage Co.	Lub.	9,840	Philadel.
5	H. J. Fenner and Co.	,,	4,800	Hamburg
5	H. A. Hughes	,,	5,200	,,
5	Snowden, Sons and Co., Ltd.	,,	1,250	,,
5	,,	,,	5,040	New York
5	Anglo-American Oil Co. (Iroquois)	Lamp	2,055,160	,,
5	,, ,,	Gas	339,270	,,
5	Bowring Petroleum Co.	Lub.	16,800	Philadel.
5	Lucas and Spenser	,,	1,260	,,
5	Page, Son and East	Lub. Oil and Gr.	240	Antwerp
5	Argo Steamship Co.	Lub.	240	Bremen
6	A. Brown and Co.	Lamp	4,000	Philadel.
7	Anglo-American Oil Co.	Lub.	28,000	,,
7	,,	,,	73,200	,,
7	Mercantile Lighterage Co,	,,	37,940	,,
7	Scott's Wharf	,,	2,000	New York
7	Port of London Authority	,,	2,760	Hamburg
6	Anglo-American Oil Co.	,,	3,600	New York
4	Vacuum Oil Co.	,,	340	,,
9	Port of London Authority	,,	120	,,
9	Vacuum Oil Co.	,,	80	,,
9	Mordaunt Bros.	,,	4,000	,,
9	Produce Brokers' Co.	,,	2,400	,,
9	Lunham and Moore	Lub. Gr.	300	,,
9	British and Foreign Wharf	Lub.	280	Antwerp
9	Page, Son and East	,,	560	,,
9	T. H. Lee	Lub. Gr.	970	Hamburg
9	Schlieman's Oil Co.	Lub. Oil and Gr.	2,900	,,
	LIVERPOOL—			
3	Huxley and Co.	Lub.	250	Antwerp
3	,,	,,	1,110	New York
4	J. Light and Son	Lub. Oil and Gr.	1,400	,,
May				
3	G. B. Taylor	Lub.	69,800	New York
3	Ismay, Imrie and Co.	,,	720	,,
4	Crew, Levick and Co.	,,	2,050	Hamburg
4	Davies, Turner and Co.	,,	160	Boston
4	Liverpool Warehousing Co.	,,	390	New York
4	Worthington and Boler	,,	9,600	Philadel.
4	C. C. Wakefield	Lub. Gr.	500	Antwerp
4	Stockdale and Doel	Lub.	6,840	Boston
4	Bowring Petroleum Co.	,,	4,050	Philadel.
5	Pickfords, Ltd.	Lub. Oil and Paste	770	Hamburg
5	E. H. Kellogg and Co.	Lub.	1,000	New York
5	Crew, Levick and Co.	,,	22,380	Philadel.
5	,,	M.Colza	3,890	,,
5	G. B. Taylor	Lub.	52,200	,,
5	W. B. Dick and Co.	,,	10,840	,,
5	Meade-King, Robinson & Co.	,,	25,000	,,
5	,,	,,	13,080	Baltimore
5	,,	Lub. Gr.	2,600	,,
5	A. Hopps and Sons	Lub.	13,370	,,
6	,,	,,	2,630	,,
6	American Line	,,	7,000	Philadel.
6	Midland Railway	,,	2,550	,,
6	Bramwell, Fern and Co.	,,	7,920	,,
6	,,	L.Comp.	190	,,
9	A. Bennett and Co.	Lub. Oil and Gr.	160	Antwerp
	BRISTOL—			
4	Pickfords, Ltd.	Lub. Oil and Gr.	310	,,
4	Anglo-American Oil Co. (Ottawa)	GasRes.	548,570	New York
6	,, (Appalachee)	Lamp	1,059,740	Philadel.
6	,, ,,	M. Colza	196,910	,,
6	H. Pritchard and Co	Lub.	2,730	New York
7	J. and R. Bush	,,	19,480	,,
7	W. G. Clarke	,,	80	Antwerp
	GRIMSBY—			
2	J. Sutcliffe and Sons	,,	400	,,
	HARWICH—			
3	Great Eastern Railway	,,	260	,,
5	,,	,,	200	,,
	HARTLEPOOL—			
5	W. Hartlepool S.N. Co.	,,	800	Hamburg
	HULL—			
5	T. Wilson, Sons and Co.	,,	160	Genoa
5	,,	,,	450	Bergen
5	Wilsons and N.E. Co.	,,	2,360	Hamburg
5	,,	,,	3,200	Antwerp
	MANCHESTER—			
3	G. B. Taylor	,,	99,320	New York
3	Meade-King, Robinson & Co.	,,	10,400	Hamburg
3	D. Currie and Co.	Lub. Gr.	120	,,
4	Pickfords, Ltd.	Lub.	120	,,
5	D. Currie and Co.	,,	2,400	,,

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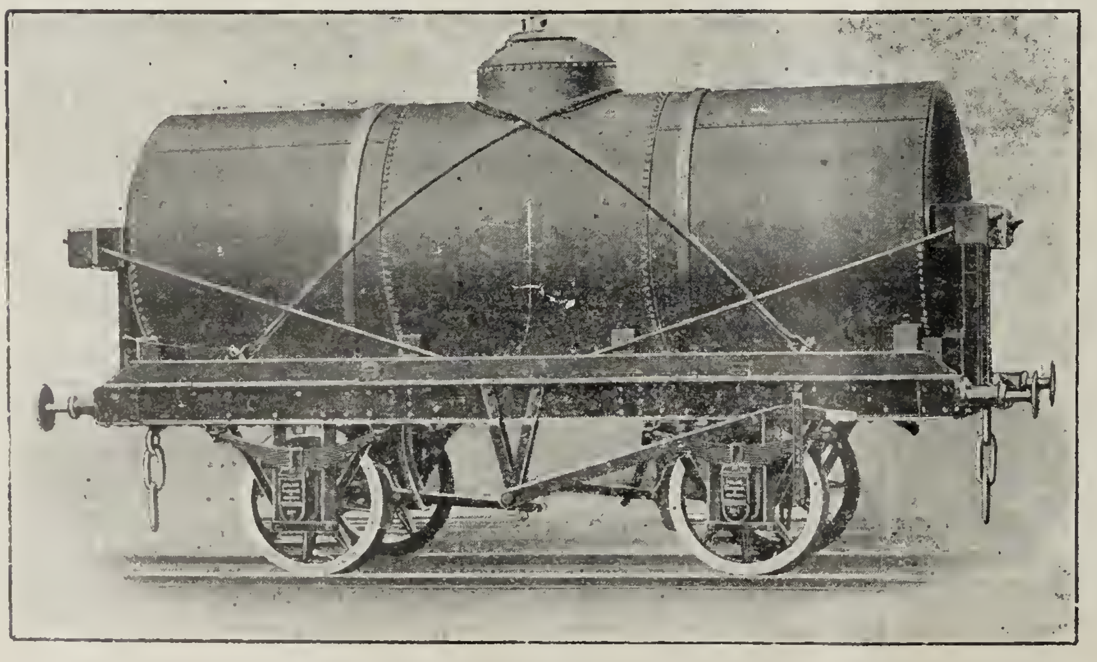

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IMPORTS.—(*Concluded*).

Date. May	Port and Importers	Description.	No. of Galls.	Port Whence.
	Newcastle—			
3	Tyne Tees Steamship Co.	Lub.	40	Antwerp
	Swansea—			
3	Burgess and Co.	L.Paste	120	Hamburg
4	Richards, Turpin and Co.	Lub.	1,600	New York
	Aberdeen—			
6	W. Graham-Yooll and Co.	Lamp	2,050	Hamburg
6	R. Connon Reid and Co.	Lub. Oil and Gr.	480	,,
	Dundee—			
5	A. Gray	Lamp	400	,,
	Glasgow—			
3	Clyde Shipping Co.	Lub.	160	Antwerp
3	Anchor Line	,,	55,040	New York
3	Allan Bros. and Co.	,,	22,520	Philadel.
	Grangemouth—			
3	W. G. Yooll and Co.	Lamp	2,000	Hamburg
3	J. Currie and Co.	Lub. Oil and Paste	1,090	,,
5	W. G. Yooll and Co.	Lamp	2,000	,,
	Leith—			
3	J. Currie and Co.	Lub.	100	,,
3	,,	,,	1,920	,,
3	Henderson and McIntosh	,,	33,390	Philadel.
3	G. Gibson and Co.	,,	540	Antwerp
5	,,	,,	5,000	,,
5	J. Currie and Co.	,,	2,000	Hamburg
5	W. Graham-Yooll and Co.	Lamp	2,140	,,
	Cork—			
3	Palgrave, Murphy and Co.	Lub.	320	,,
	Belfast—			
3	J. C. Pinkerton and Co.	,,	150	,,
5	,,	,,	130	,,
	Dublin—			
6	Palgrave, Murphy and Co.	,,	160	,,
	Deduct to correct—		6,982,550	
	Barrow—			
6/4	Anglo-American Oil Co. (Tonawanda)	Lamp	13,210	Philadel.
	Manchester—			
25/4	British Pet. Co. (Aureole)	Gas	16,170	Pt. Arthur
21/4	British Pet. Co. (Servian)	Lamp	11,520	,,
	Total for the Week		6,941,650	

Note—28/4 Hull—Steamship Cito, Port Whence should read Antwerp, not Hamburg as stated.

FOR THE WEEK ENDED 16th MAY, 1910—

Date. May	Port and Importers.	Description.	No. of Galls.	Port Whence.
	London—			
10	T. H. Lee	Lub.	70	Hamburg
10	C. Price and Co.	,,	200	Antwerp
10	Langley, Smith and Co.	,,	12,000	New York
10	Port Authority	,,	7,800	,,
10	Mordaunt Bros.	,,	2,500	,,
10	,,	,,	6,460	,,
10	Fielder, Hickman and Co.	,,	9,320	,,
10	Scott's Wharf	,,	2,000	,,
10	Port of London Authority	Lub. Oil and Gr.	220	Philadel.
5	Anglo-American Oil Co. (Navahoe)	Naphtha	1,971,010	New York
5	,, ,,	Benzine	842,560	,,
11	,,	Lub.	12,560	,,
11	,,	,,	2,000	,,
11	Lubricating & Fuel Oils, Ld.	,,	80	Hamburg
11	H. Finkler and Co.	L.Resid.	5,600	Trieste
11	W. H. J. Alexander	Lub.	2,400	,,
11	Port of London Authority	,,	230	Hamburg
12	Lubricating & Fuel Oils Co.	,,	12,790	,,
12	T. H. Lee	Lub. Gr.	120	,,
12	Page, Son and East	Lub.	440	Antwerp
12	Mercantile Lighterage Co.	,,	37,900	New York
12	R. Park and Co.	,,	1,580	Marseilles
13	British and Foreign Wharf	,,	240	Antwerp
13	British Pet. Co. (Aras)	Lamp	454,000	Philadel.
14	Mordaunt Bros	,,	9,780	Hamburg
14	L. H. Muller	Lub. Gr.	70	Rotterdam
14	Produce Brokers' Co.	Lub.	2,600	Baltimore
14	Schlieman's Oil Co.	Lub. Gr.	2,760	Hamburg
14	,,	Lub.	600	,,
14	J. C. Goodall	,,	4,000	St.Petersbrg.
	Liverpool—			
10	Davies, Turner and Co.	,,	60	Boston
10	Ismay, Imrie and Co.	,,	25,960	New York
10	Vacuum Oil Co.	,,	20,600	,,
10	,,	L.Resid.	12,000	,,
10	W. B. Dick and Co.	Lub.	6,100	,,
10	G. B. Taylor	,,	40,200	,,
11	Burnaby and Chantrell	L.Comp.	1,230	,,
12	Liverpool Warehousing Co.	Lub. Gr.	480	Hamburg
12	Pickfords, Ltd.	Lub. Oil and Gr.	930	,,
12	Meade-King, Robinson & Co.	Lub.	10,400	,,
12	,,	,,	20,800	,,
12	Cunard Steamship Co.	,,	8,820	New York
12	Anglo-American Oil Co. (Potomac)	Lamp	492,230	Philadel.
12	W. B. Dick and Co.	Lub.	11,080	,,
12	Worthington and Boler	,,	2,600	,,
12	Crew, Levick and Co.	Lub.	9,040	,,
12	Dominion Line	,,	11,400	,,
13	E. H. Kellogg and Co,	,,	3,000	New York
13	Woollett, Curley & Co., Ltd.	,,	10	,,
13	Cunard Steamship Co.	,,	190	,,
13	Bramwell, Fern and Co.	,,	2,750	Philadel.
13	Meade-King, Robinson & Co.	,,	10,200	,,
13	J. Light and Son	,,	2,000	Hamburg
13	Huxley and Co.	,,	250	,,
14	Anglo-American Oil Co. (Lackawanna)	,,	826,260	Philadel.
	Barrow—			
2	Anglo-American Oil Co. (Weehawken)	Naphtha	135,530	Kustendje
2	,, ,,	Benzine	305,960	,,
	Bristol—			
10	British Pet. Co. (Carpathian)	Lamp	1,736,000	Pt. Arthur
10	C. Hill and Sons	Lub.	15,680	New York
12	H. Matthews and Co.	,,	240	Antwerp
	Goole—			
13	Goole Steamship Co.	,,	480	Hamburg
	Grimsby—			
10	J. Sutcliffe and Son	,,	250	,,
10	,,	,,	160	Antwerp
11	,,	,,	2,360	,,
	Harwich—			
12	Great Eastern Railway	,,	300	,,
	Hull—			
10	W. Gilyott and Co.	,,	1,040	Philadel.
10	Wilsons and N.E. Co.	,,	720	Antwerp
10	,, ,,	,,	5,200	Hamburg
11	,, ,,	,,	600	,,
11	,, ,,	,,	380	Antwerp
11	T. M. Roberts and Co.	,,	420	,,
12	T. Wilson Sons and Co.	,,	1,000	Riga
12	Wilsons and N.E. Co.	,,	80	Hamburg
14	,,	,,	1,920	Antwerp
	Manchester—			
10	Pickford's	,,	170	Hamburg
10	D. Currie and Co.	Lub.Gr.	720	,,
20/4	W. M. Whittingham & Co.	Fuel	80	Genoa
12	D. Currie and Co.	Lub.	160	Hamburg
12	J. T. Fletcher and Co.	,,	40	Antwerp
12	Lamport and Holt	,,	900	New York
13	Meade-King, Robinson & Co.	,,	2,600	,,
13	,, ,,	M.Colza	33,640	Philadel.
13	,, ,,	Lub.	54,600	,,
13	,, (Batoum)	Gas	819,720	Pt. Arthur
13	Manchester Liners, Ltd.	Lub.	5,120	Philadel.
13	C. H. Morton and Son	,,	1,600	,,
13	Worthington and Boler	,,	1,640	,,
	Newcastle—			
10	Tyne-Tees S.S. Co.	,,	160	Antwerp
10	,,	,,	360	Hamburg
14	P. H. Matthiesson and Co.	,,	480	Bergen
	Southampton—			
12	P. E. Curry	,,	150	New York
	Swansea—			
12	Burgess and Co.	,,	250	Hamburg
	Dundee—			
11	D. Alexander and Sons	,,	5,000	,,
	Glasgow—			
9	Anchor Line	,,	55,370	New York
16	,,	,,	89,770	,,
	Grangemouth—			
9	W. Graham-Yooll and Co.	Lamp	1,000	Hamburg
9	J. Currie and Co.	Lub.	5,680	,,
10	W. Graham-Yooll and Co.	Lamp	1,000	,,
	Leith—			
10	W. Graham.Yooll and Co.	,,	2,220	,,
10	G. Gibson and Co.	Lub.	360	Antwerp
12	,,	,,	400	,,
12	W. Graham-Yooll and Co.	Lamp	2,180	Hamburg
12	J. Currie and Co.	Lub.	1,550	,,
	Dublin—			
10	Palgrave, Murphy and Co.	,,	70	,,
10	Anglo-American Oil Co.	Lamp	768,120	Philadel.
	Deduct to correct—		8,985,910	
	Hull—			
28/4	T. Wilson, Sons and Co.	Lub.	8,000	
	Total for the Week		8,977,910	
	Total for the Fortnight		15,919,560	

The Petroleum Review.

By PAUL DVORKOVITZ.

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THE PETROLEUM REVIEW:

The ANNUAL SUBSCRIPTION for both English and Foreign readers is 26s., including Postage. Single Copies may be had at the offices at 1s.

The Editor would esteem it a favour if readers, when communicating with the various firms advertising in our pages, would mention the "Review."

Contributions upon items of interest are always welcomed from subscribers, but in each case these should be accompanied with the name and address of the sender, not necessarily for publication.

Editorial Notes.

Public Oil Issues during May.

Although the activity in oil enterprises in this country experienced a temporary lull during the month just closed, due in part to events which need not be particularised here, the fact remains that during the month, there were fourteen petroleum companies which went to the public for capital to the extent of over £3,000,000. Several of the companies were over-subscribed, but all of them went to allotment, excepting in the case of the Pacific and Orient Oil Co., which was withdrawn. Only three Maikop companies went to the public last month, but the reason for this was no doubt the state of the London market, which at the moment is dull and almost without interest.

Baku Interest in Maikop.

Speaking of Maikop and the interest which has been displayed in the field by the British investing class, we are reminded of the fact that, though some months ago, the new territory was ignored by those engaged in oil enterprises in Baku, things have now considerably changed. In fact, to-day there is as great an interest being taken in Maikop in Baku itself as anywhere else. The Baku people have learned to recognise the Maikop field as destined to be a very serious competitor to Baku, and try as they have done in the past to belittle its importance, it is seen that the new region which is geographically placed so favourably, has to be reckoned with. Thus it comes about that to-day many deals for Maikop lands are going through in Baku, where the opinion is held that the new region is practically without parallel. It is all the more interesting to know this in the face of the disinterested attitude which Baku has shewn toward Maikop until quite recently.

Is America's Export Trade on the Decline?

Though America is slowly recovering by the great set back which was toward the end of last year given to its petroleum export trade by the termination of the French treaty, but which has now fortunately been amended, it cannot be denied that American petroleum exports are finding a greater difficulty in entering the markets of the world than has been hitherto the case. Competition is becoming more and more keen, and it is not surprising therefore to find that far away from home, American petroleum products have either to submit to unjustifiably low prices, or are not in great demand. The American petroleum exports for April were over $1,000,000 below the values of the products exported during March, while taking the ten months, the deficit in values is approximately $8,000,000. There is of course some explanation of this in the fact that the volume of trade has been somewhat lighter. For instance, during the ten months of the fiscal year 1909 the total quantity shipped abroad was over 900,000,000 gallons, but this last ten months it has only been 827,000,000 gallons. Still the fact remains that prices are on the down grade, and with them we naturally see diminishing profits the rule.

The Departmental Committee on Petroleum Spirit.

This committee which was appointed during the last few days of 1908 to inquire into the efficiency of the existing regulations as to the storage, use and conveyance of petroleum spirit, and to consider what further precautions, if any, were desirable, have this week published the first report upon their labours. The report is of great volume and well brought out, but when the subject matter is sifted to its smallest dimensions, one is struck with the fact that it has been a case of "Much ado about nothing." At one time we were forced to the conclusion that the committee were bent upon insisting upon more drastic regulations for governing the storage and transport of petroleum spirit than are at present the rule, but we are pleased to note that the intention of the committee, as more recently shewn, is to weigh up all evidence and come to a well-balanced opinion as to what is needed. The report just issued corroborates this contention since the few recommendations it contains are not such as will in any way render the present restrictions more drastic. On the other hand, we have still reason to hope that the outcome of the committee's sittings may be that the great commerce which is carried on to-day in petroleum spirit may be freed from some of the absolutely unreasonable regulations which surround it.

Messrs. Nobel Brothers' Dividend.

If one is to form any definite opinion as to the profitable lines upon which the Baku petroleum industry was conducted last year, the details which are shortly to be made public in the balance sheet of Messrs. Nobel Brothers will have a somewhat unsatisfactory aspect. Even when the industry in the Baku district was in the throes of uneasiness, the record of Messrs. Nobel Brothers was kept up to a highly remunerative standard, but for the past year the profitable nature of this vast undertaking has been scarcely up to the average of past years. For 1908, we recollect the firm announced a dividend of fifteen per cent., or 750 roubles per share; this year, however, the intention is to declare a dividend of twelve per cent.—600 roubles per share. There may of course be many extenuating circumstances which have to be taken into full consideration, but on the face of it, the drop in dividend is by no means consoling.

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PRODUCTION OF ENGLISH COMPANIES IN RUSSIA.

Baku Russian Petroleum Co., Ltd.—The production for the week ended May 7th was 142,300 poods; and for the week ended May 14th was 160,200 poods. These figures are exclusive of oil produced from plots leased off.

Russian Petroleum and Liquid Fuel Co., Ltd.—The production for the week ended May 21st was 130,000 poods, or 2,096 tons; and for the week ended May 28th was 131,000 poods, or 2,400 tons.

Spies Petroleum Co., Ltd.—The production for the week ended May 22nd was 326,200 poods, or about 5,261 tons. The total production for the year to May 22nd was 5,836,905 poods, or about 94,144 tons. The total production for the corresponding period last year was 4,781,310 poods, or about 77,118 tons. The production for the week ended May 29th was 317,140 poods, or about 5,115 tons. The total production for the year to May 29th was 6,154,045 poods, or about 99,259 tons. The total production for the corresponding period last year was 5,015,205 poods, or about 80,890 tons.

The European Petroleum Co., Ltd.—The production for the week ended May 22nd was 106,296 poods, or 1,714 tons; and for the week ended May 29th was 113,064 poods, or 1,823 tons.

MARCH PRODUCTION IN THE CALIFORNIAN FIELDS.

The production of crude oil in the Californian fields during March reached a record of over 6,000,000 barrels. This enormous output is accounted for by the great flow from the Lakeview gusher, and also from other prolific wells recently brought in.

The Coalinga field itself yielded 1,603,000 barrels, and the Kern River field's output for the month was 1,224,000 barrels, while the Midway field came third with over 600,000 barrels to its credit.

The drilling activity in the Californian fields to-day is almost unprecedented, over 600 wells being sunk. The greatest activity is in the Coalinga field, where 145 wells are now going down. The production during March was obtained from 4,161 wells. Of this number 1,404 are in the Kern River fields and 624 in the Coalinga region. Thus it is seen that the wells in the latter field are more than double as prolific as those in the Kern territory.

The average daily production is therefore 194000, barrels, while consumption is about 183,000 barrels, the 11,000 barrels being surplus. About 20,000,000 barrels are now in storage in the fields.

SITUATION WANTED.

YOUNG MAN, with theoretical knowledge of oil, seeks employment on field, with view to practical experience.—Write "W. F. L.," care of Petroleum Review, 45, St. Mary Axe, E.C.

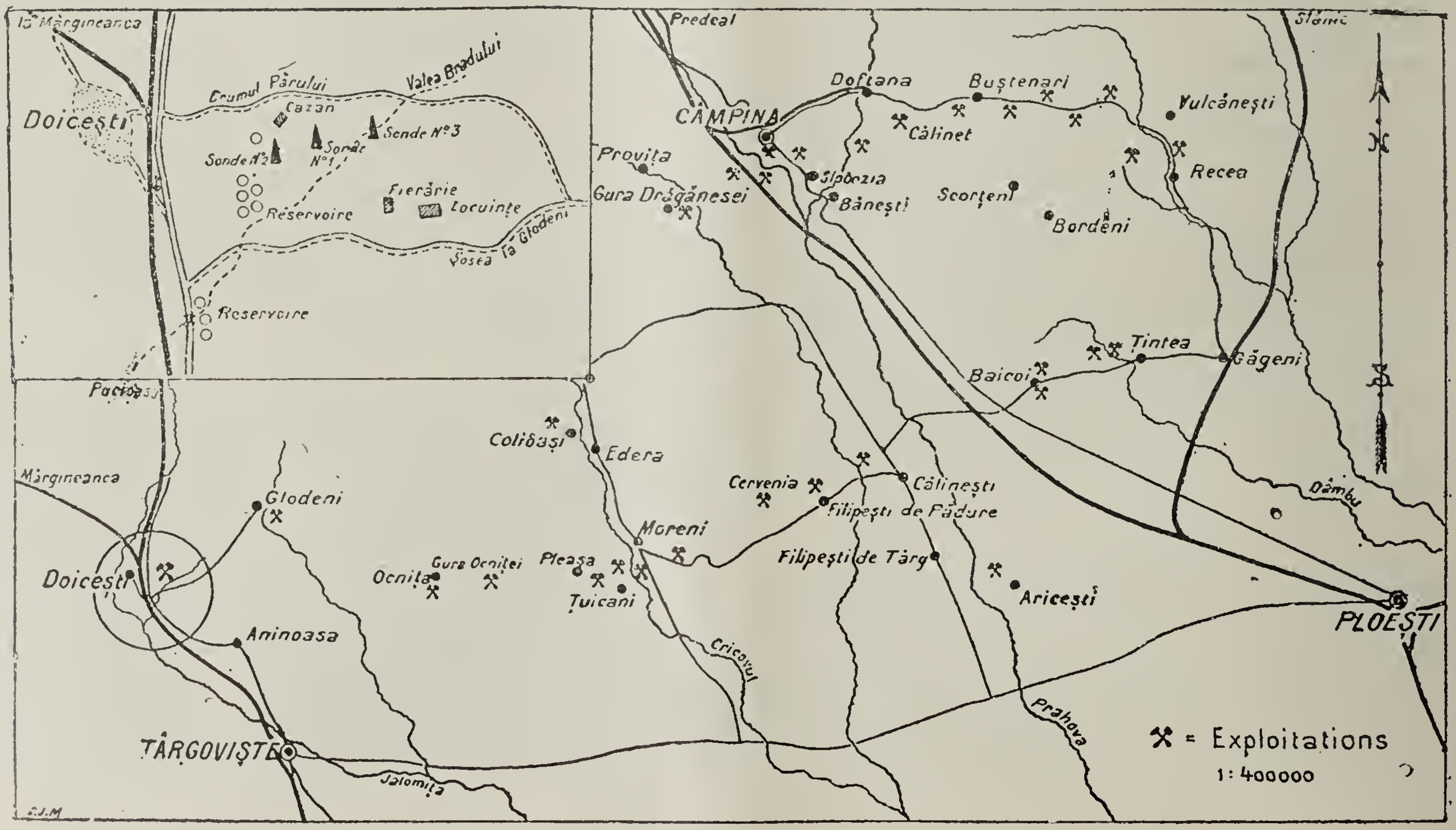
..A New Producing Region in Roumania...

THE DOICESHTI DISTRICT.

We take from the *Moniteur du Petrole Roumain* the very interesting map of the new petroliferous area of Dioceshti (Dambovitza), the exploration of which has this year been undertaken by the Astra Co. The map gives a clear idea of the situation of the area, as well as of the boreholes and other installations. The position of the area is an excellent one, the Dioceshti fields being situated close to the station Dioceshti on the Targovishte-Pucioara railway. The fields cover an area of 2,000 pogon. Two bores have been drilled by the Astra Co., of which one became productive in March, yielding 10 to 15 tons a day, the other not being yet completed. An analysis of the oil obtained shews the following results:—

Benzine, light	9·17
,, heavy	2·12
Illuminating	28·60
Residuals	58·22
Loss	1·89

According to this analysis the oil is very similar to that of Moreni.



THE ADVENT OF THE BULK OIL-CARRYING STEAMERS.

AN INTERESTING CHAPTER OF OIL TRANSPORT DEVELOPMENTS.

(Specially Written for the "Review.")

— By —
Mr. W. A. RIEDEMANN,
Geestemunde.

In the Kensington Museum (Machinery Department) a model of the world's first tank steamer, "Glückauf," is to be seen. This tank steamer may be called the first, as previously there never existed a steamer that could have taken oil in bulk, in such a way that the hull itself served as a tank for oil. This tank steamer was built by Messrs. Armstrong, Mitchell and Co., of Newcastle, for account of Mr. Wilh. A. Riedemann, Geestemünde.

It may be of interest to learn some details as to the origin of the idea to build such a steamer. Mr. Riedemann had a large fleet of sailing vessels which, though no longer suitable for voyages to East India or the West Coast of America, were used for the transportation of petroleum in barrels. Two of these sailing vessels, the "Derby" and the "Adorna," had amidships two large round iron tanks reaching from keel to deck, to carry the necessary drinking water for a five to six months' voyage. It is a remarkable fact that our German sailors prefer the water kept in wooden barrels to that kept in iron tanks. The explanation for it is that, owing to the rust forming in iron tanks, the water soon becomes yellow and is then thought less wholesome by the sailors. In consequence, these ships carried the necessary drinking-water for the voyages to America in barrels stored on deck. As the use of the iron tanks thus became unnecessary for water, Mr. Riedemann had them filled in America with petroleum in bulk, and these tanks could hold about 100 barrels each. This trial turned out so well, as regards leakage as well as saving in cost, that about four marks could be saved on one single barrel. It was owing to this favourable result that Mr. Riedemann in 1874 arranged his large sailing vessel "Andromeda," of 3,200 tons capacity, for shipments of petroleum in bulk. This ship had three decks, and in each deck he had built 24 iron tanks, which were very elaborately provided with a pipe line for the filling and discharging of the oil, and with another pipe line for the expansion of the oil.

This trial was highly successful, but had the one disadvantage that, if any repairs were to be made on the vessel, which was a wooden ship, all these tanks had to be taken out, thereby causing not only great expenditure but also damage to the tanks. Mr. Riedemann therefore conceived the idea to use the sides of an iron steamer as tanks for petroleum in bulk, providing such a ship with an engine aft, protecting the latter by a cofferdam of four to five feet breadth, and keeping this cofferdam constantly full of water. The remaining space he separated by a middle-line bulkhead in two compartments, which again could be separated by eight other such bulkheads in seven different compartments. This plan Mr. Riedemann "hawked" about at almost all shipyards in Germany, but none were willing to risk, as they said, the good reputation of their firm by building a ship so immensely liable to catch fire, and which they contended would never be able to cross the ocean, without being blown up by the great amount of gas generated by the petroleum. They were quite ready to construct a sailing vessel of that kind, as such would be less liable to catch fire. This, however, did not in any way suit Mr. Riedemann, and when he heard that Messrs. Armstrong, Mitchell and Co., of Newcastle, might be willing to carry out his plan, he at once went to Newcastle, stayed there about one week, and all sorts of preliminary examinations and pressure trials having been made, the first tank steamer of the world "Glückauf" was devised, and an order for her building given in September, 1885.

It was hardly possible to get the necessary crew for this first steamer "Glückauf," because it was still feared that the ship would explode, owing to the gases of the petroleum. In Germany the ship was not called "Glückauf," but "Fliegauf."

The "Glückauf" having arrived safely in Geestemünde at the end of August, 1886, it was seen that all fears of danger from fire were absolutely groundless. As, moreover, the ship discharged her cargo of refined petroleum almost without any leakage, this way of transportation proved to be quicker, safer, and more profitable in every way than the former means of transport in sailing vessels.

Mr. Riedemann consequently ordered four further such steamers in the years 1886 and 1887, and other firms followed suit and also transported oil in tank steamers, so that at present there are more than 250 of these steamers afloat, carrying, in addition to petroleum, liquids of all descriptions, such as naphtha, lubricating oil, fish oil, etc. If nowadays this kind of steamer did not exist, it would be next to impossible to supply Europe with the immense quantities of naphtha necessary for the running of motors of all kinds. Naphtha is shipped very extensively from East India, and it would hardly be possible to transport it from there by sailing vessels. At all events, the naphtha would cost three or four times as much, on account of the enormous leakage and the long voyage.

It may also interest to learn that these tank steamers are also used in the Navy. The American Navy employed during the war against Spain two very large tank steamers for the transport of fresh boiler water for their men of war. For the same purpose the Russian fleet, when sailing from the Baltic to the Yellow Sea, had three big tank steamers.

I have before me the *Weser Zeitung*, of Bremen, from the year 1886, and the quotation of the report of that paper on the first tank steamer "Glückauf" may be of interest.

The writer in the *Weser Zeitung* says:—"Under date of August 13th, the New York paper, *Journal of Commerce*, published the following article about the export of petroleum 'in bulk': 'At a meeting of the longshoremen held last Sunday afternoon in the 'Military Hall,' a committee of seven persons was appointed for the purpose of entering into negotiations with the ship-brokers and merchants of this city, who are connected with the export of petroleum to Europe, with a view of bringing about an agreement between the parties interested on steps to be taken to prevent the export of crude or refined petroleum in bulk. A short time ago Mr. W. A. Riedemann, owner of a number of petroleum vessels, had a tank steamer built in England, and with that steamer he has exported petroleum 'in bulk.' The carrying capacity of the steamer is 22,000 barrels, a cargo which, under ordinary circumstances, *i.e.*, shipped in barrels, would necessitate three rather large vessels. Mr. Riedemann intends to lay his steamer alongside of the pier of the Standard Oil Co. and to fill the oil direct into the steamer by pipes. The loading of the steamer which formerly would have taken a month, can now be completed in three days. Mr. Riedemann now intends to have further tank steamers built so as to export all his requirements of oil in them. If this should be allowed, there will be a complete reaction in the business here.

A great number of petroleum firms will be ruined, and petroleum brokers completely brushed aside. There is said to be a general stir among the parties interested to present a petition at the Congress to prohibit the export of petroleum 'in bulk' for the sake of security. The gases produced in the tanks of petroleum steamers are very apt to bring about explosions, which would cause the ship to founder with every soul on board. It is, moreover, asserted that the business of the petroleum refineries would seriously suffer, since the refining of crude petroleum is cheaper in Europe than here. The committee of the longshoremen was assured by the merchants and brokers that everything would be done to prevent the export of petroleum 'in bulk.' The longshoremen contemplate whether it would be advisable to prohibit the loading of the other petroleum ships of Mr. Riedemann. The committee will communicate to-day with the Standard Oil Co. and ask them not to supply petroleum any more to the tank steamer. This matter has greatly alarmed the members of Produce Exchange, as it menaces to ruin their entire business.'

"These gentlemen will quiet down in the end. A similar resistance has always been offered as soon as any new invention leads to a saving in work. Progress has always triumphed in the end."

THE OUTPUT OF THE ROUMANIAN REFINERIES DURING MARCH.

At the end of February there were in store at the refineries the following quantities of petroleum products (in tons):—

Benzine	45,150
Illuminating	75,549
Lubricating	22,752
Residuals	166,403

The quantity of petroleum delivered to the refineries during March amounted to 101,058 tons, out of which the following quantities of products were produced (in tons):—

Benzine	21,000
Illuminating	21,547
Lubricating	3,234
Residuals	52,644

The following quantities were delivered for inner consumption during the month (in tons):—

Benzine	1,487
Illuminating	2,589
Lubricating	1,750
Residuals	29,723
Fuel consumed in the refineries	9,142

The following were left in stores at the end of the month (in tons):—

Benzine	38,985
Illuminating	68,997
Lubricating	23,957
Residuals	177,299

Of paraffin, 71·8 tons were delivered for consumption in the country and 87·3 tons left in store.

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A NEW CENTRE FOR MOTOR SPIRIT DISTRIBUTION.

What is expected to prove a large import trade in motor spirit was commenced last week, when a first cargo of 1,400 tons arrived at Granton, Scotland, and was discharged into the great tanks constructed there recently by the Asiatic Petroleum Co., Ltd. The spirit was shipped from Rotterdam, and was discharged by powerful pumping machinery. The spirit was brought across the North Sea in a barge towed by a tug. Other pipes are being installed for the discharge of expected large cargoes arriving direct from the Far East.

— OIL. —

WANTED—Concessions or Estates in well-known Oil-bearing Districts, Russia preferred. Large Company now being formed, could take over and work same. Particulars to "Oil Director," c/o May's Advertising Offices, 29, John Street, Bedford Row, London, W.C.

DETAILS OF BAKU PRODUCTION DURING FEBRUARY, 1910.

The following are the details of the production of crude oil at the Baku oil fields during February, as published in the latest issue of the *Neftiannoie Dielo* (in poods):—

	Number of Wells in Exploitation.	Production (in poods).				Average per Well per Day
		By Baling.	By Spouters.	Casual.	Total.	
Balakhany	787	5,581,450	—	13,962	5,595,412	264
Saboontchi	894	15,233,393	—	245,519	15,478,912	647
Ramany	210	7,140,377	—	28,194	7,168,571	1,260
Bebe-Aibat	280	9,097,055	—	4,600	9,101,655	1,239
Total for February, 1910	2,171	37,052,275	—	292,275	37,344,550	642
,, ,, 1909	1,975	34,972,070	248,051	336,025	35,556,146	676

PRELIMINARY REPORT ON THE TARANAKI OIL FIELD OF NEW ZEALAND.

By Dr. J. M. Bell, Director of the Geological Survey.

(*Concluded from page 286.*)

As mineral waters nearly always accompany petroleum, mineral springs and the evidence of former mineral springs are to a limited extent favourable indications. Travertine, a deposit of a former mineral spring, occurs at several places in the area, notably at German Hill.

A loose porous stratum, such as a sandstone, a conglomorate, or a limestone, is ordinarily considered the most favourable situation for the occurrence of a large reservoir of petroleum, when this is capped by an impervious stratum such as a shale or a claystone. Interstratified claystones and sandstones have been pierced by the various drill-holes so far sunk; but it may be said that the sandstones, being generally fine-grained and argillaceous, are usually not sufficiently porous to contain much oil. It is thought that most of the small pools so far encountered are either in fissures in both sandstones and claystones, or are very minor impregnations in the more porous of the sandstone beds, and that the oil has arisen through fault-planes (which are widespread in this locality) from reservoirs more deep-seated than those so far pierced by the various bores.

A complete examination of the tertiary strata so well exposed eastward and northward from Moturoa to the Mokau gives the observer a very fair idea of what may be expected in the drill holes. Overlying the extensive Mokau coal beds, the south-westerly extension of which, by coming in contact with volcanic heat or mere increase of heat towards the earth's interior, have been the source of the petroleum, are thick beds of porous green sandstones. It is thought that until these are cut by drilling no very extensive pool of oil will be struck, unless perchance a large fissure rising from great depths is reached above.

Consequently it follows that, in the writer's opinion, the drill holes so far put down at Moturoa are not sufficiently deep, and he would suggest that one hole be chosen, preferably No. 3 (as being the most westerly and consequently apparently the nearest to the source of oil), and pushed down until the porous stratum seen on the Mokau is encountered. It would be quite hypothetical in the present state of the geological survey of the oil field to say at what depth this stratum will be reached, but it is hoped to obtain more definite knowledge on this point before our work in the locality is complete. Meanwhile the exploratory bore should be proceeding.

In the present state of our knowledge it seems to the writer that hopeful petroliferous country, in which boring might later be carried out with success, lies between the present No. 3 bore and the foot of the breakwater. Any bores, however, sunk in this locality should await the results of the deep trial bore—the continuation of No. 3—and when put down should be located at a sufficient distance from the foreshore to be uninfluenced by the sea.

Away from Moturoa all indications must be closely examined and carefully studied before sites for boreholes are chosen. Ordinarily the crest or near the crest of a faulted anticlinal fold is considered the most hopeful site for boring. To such a natural apex the oil would readily ascend through the faults till a porous stratum was reached, from which stratum further migration upward was prevented by an impervious roof.

It is thought that the geological survey will be able to reveal, especially towards the east of the field, these anticlinal crests, near which gas now issuing—evidently through fissures—suggests petroleum-pools beneath. However, the work has not yet advanced sufficiently to speak definitely on this point. In the eastern part of the area drilling would probably not necessarily have to be prosecuted to such depths as near Moturoa, since there is a general rise of the strata towards the eastward and northward.

It may be remarked in closing that, even with the greatest attention given to all geological details before selecting a borehole-site, there is danger that the lower part of the petroliferous strata encountered "may contain water instead of gas and oil; or may be calcified or silicified instead of being bitumenized; or that water has entered the outcrop of the strata at higher altitudes [than the borehole-site] and ascended through the formation, floating the oil to the surface and carrying the same to the other dip in the anticline" than that on which the drill-hole is proceeding.

It is unfortunately true that theory and observations cannot be perfect, but they are immeasurably better than the mere guessing which alone can be said to have accounted for the choice of the sites of many of the Taranaki boreholes.

In the writer's opinion, the chances for oil in Taranaki may in general be said to be as good as in any imperfectly tried field, and it is hoped that after the observations of Survey are complete the industry will be pushed as vigorously as surface indications certainly seem to warrant.

BORE HOLES FOR OIL
Contracted for by
JOHN M. THOM,
Canal Works,
Patricroft, MANCHESTER.
CONTRACTOR TO H.M. GOVERNMENT.

THE ASSAM OIL COMPANY, LIMITED.

The eleventh report of the directors of the Assam Oil Co., Ltd., which will be submitted to the annual meeting of the shareholders next Wednesday, states that the management of the company's refinery continues to be efficient and satisfactory. The quantities of crude oil dealt with and refined oils and wax produced in 1909 exceeded those of any previous year. As a result of a series of experiments, an improvement is being made in the wax sweating process which it is expected will considerably cheapen the cost of production. The progress made at the drillery has been quite satisfactory during the past year.

During the last cold weather, officers of the Geological Survey of India have been in Assam, and in the course of their work a preliminary survey of the Digboi district was made. It is understood that the survey will be extended and completed next year, but the results obtained up to the present are believed to substantially confirm the opinions which are held by the company's technical adviser on the geological structure of the territory.

The profits on the company's trading during the past year have been very seriously affected by the competition of new producers in Burmah. Prices fell to a very low level, and remained there during the whole of the latter part of the year.

An advance was not made until March of this year, and since then prices have gone up to their normal. It is hoped it will be possible to maintain them for some time, but there is still a good deal of uncertainty in the position.

The effect of the above has been that the profit earned by the company for 1909, only amounted to £12,434 16s. 4d., which, with the amount brought forward from 1908, makes a total available of £28,035 6s. 10d. Under the circumstances the directors do not feel justified in recommending a dividend, but propose to place £12,000 to depreciation account, and carry forward the balance of £16,035 6s. 10d.

The directors have to record with very great regret the death of their colleague, Mr. H. de C. Agnew. It is not proposed to fill the vacancy. Mr. T. B. Bowring and Mr. G. Turner are the directors retiring by rotation and being eligible, they offer themselves for re-election.

RUSSIA'S REDUCED FREIGHT RATES ON KEROSENE.

With reference to the announcement made in the Review some weeks ago relative to kerosene exports from Batoum, H.M. Consul at that place (Mr. P. Stevens) reports that the reduced tariff for the transport of kerosene came into operation on April 21st. From that date all refined and unrefined kerosene carried by the Trans-Caucasian and the Vladikavkaz railways to Batoum and Novorossisk for export to foreign countries has to pay the following transport rates :—

(1) To Batoum, from Baku station and the local branch lines, including the Surakhany branch :—In tank cars belonging to the railway or to private firms, 15·3 copecs per pood (£1 os. 1d. per ton); by the pipe line, 13 copecs per pood (17s. 1d. per ton).

(2) To Novorossisk, (*a*) from Baku station and the local branch lines, including the Surakhany branch :—In tank cars belonging to the railway or to private firms, 17·3 copecs per pood (£1 2s. 9d. per ton).

(*b*) From Petrovsk :—In tank cars belonging to the railway, 16·3 copecs per pood (£1 1s. 5d. per ton); in tank cars belonging to private firms, 15·3 copecs per pood (£1 os. 1d. per ton).

(*c*) From Grosny :—In tank cars belonging to the railway, 14·3 copecs per pood (18s. 9d. per ton); in tank cars belonging to private firms, 13·3 copecs per pood (17s. 6d. per ton).

H.M. Consul adds that on the same date a new reduced tariff came into force for the transport of kerosene from Baku from Batoum to Vladivostock, the Ussuri Region and Manchuria.

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PETROLEUM IMPORTS INTO ITALY DURING FEBRUARY.

The following table shews the amount of products imported into Italy during February (in tons) :—

From—	Illuminating Oil.	Benzine.	Lubricating Oil.	Residuals.
Russia	1,612	—	467	563
United States ..	6,293	—	2,554	
Austria	500	65	175	
Roumania ..	216	32	—	
Other Countries..	4	497	42	
Total ..	8,625	594	3,238	563
February, 1909 ..	7,167	502	3,935	639

CLASSIFIED IMPORTS INTO UNITED KINGDOM UP TO MAY 30th, 1910.

IN GALLONS.

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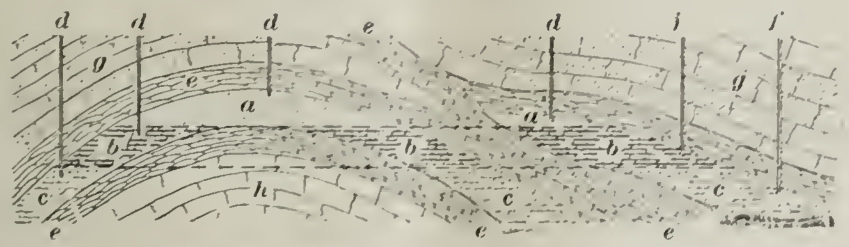
Country.	Illuminating.		Lubricating.		Residuals.		Gas Oil. (Solar)		Benzine.		Fuel Oil.		Other Descriptions.		Totals.	
	Since May 16.	From Jan. 1.	Since May 16.	From Jan. 1.	Since May 16.	From Jan. 1.	Since May 16.	From Jan. 1.	Since May 16.	From Jan. 1.	Since May 16.	From Jan. 1.	Since May 16.	From Jan. 1.	Since May 16.	From Jan. 1.
Austria ...	—	—	2,000	59,900	—	—	—	—	—	—	—	—	—	—	2,000	59,900
Belgium ...	820	820	19,270	208,060	—	—	—	—	—	—	—	—	—	2,460	20,090	211,340
Canada ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dutch India.	—	—	—	—	—	—	—	—	1,439,220	7,849,010	—	—	—	2,730	1,439,220	7,851,740
Germany ...	13 540	410,450	71,910	675,840	—	2,000	—	—	—	—	—	4,840	—	3,400	85,450	1,096,530
Holland ...	—	610	280	2,070	—	—	—	—	477,800	952,950	—	—	—	113.710	478,080	1,069,340
Roumania ...	1,441,000	6,871,400	—	659,560	—	134,750	—	290	—	1,378,770	—	130	—	—	1,441,000	9,044,900
Russia ...	—	4,560,630	1,350	3,414,910	—	117,120	—	—	—	700,820	—	—	—	240	1,350	8,793,720
U.S.A. ...	3,333,460	39,779,270	2,470,140	18,295,350	—	55,810	2,102,000	23,810,610	211,600	11,024,260	4,000	3,623,180	29,820	425,840	8,151,020	97,014,320
Other Countries	1,511,330	1,991,600	6,920	21,010	--	—	—	—	217,190	412,160	1,600	1,780	—	1,600	1,737,040	2,428,150
	6,300,150	53,614,780	2,571,870	23,336,700	—	309,680	2,102,000	23,810,900	2,345,810	22,317,970	5,600	3,629,930	29,820	549,980	13,355,250	127,569,940

THE GEOLOGY OF OIL AND GAS.

By Mr. ERASMUS HAWORTH, of the University of Geological Survey, Kansas.

In many oil fields and gas fields there seems to be a certain definite relation between local geologic structure and the pools in which oil and gas are found. This idea was first worked out for the Appalachian region. Briefly stated it is that gas pools and oil pools are found under anticlinal arches and along the branches or limbs of such arches, while water pools should be expected under the synclinal troughs. Nature, in her modifications of the horizontal bedding planes of stratified rocks, often has thrown them into undulating positions of crests and troughs. Through the influence of certain dynamic processes, rock strata have been lifted here and depressed there, producing an arch-like dome in one place and a corresponding trough in another. If, now, a productive sandstone should happen to occur in such a place, far beneath the surface with an overlying oil-tight and gas-tight shale bed, the tendency would be for the three materials—water, oil, and gas to arrange themselves in the order of their specific gravity. This would put the gas at the top of an arch, *a*, Fig. 1, with oil next below at *b*, and water still farther down at *c*. If, now, the supply of gas is sufficiently large it may occupy the entire arch extending away down the sides or limbs of the anticline. If, however, the supply of gas should be small, with oil in comparative abundance, the gas would be at the top of the arch, oil next below, and water still below the oil.

Fig. 1 will serve as a diagram illustrating how such conditions can be brought about, and how wells put down in the several different places, as shewn, may encounter several different conditions. In each case it will be understood that should oil be absent gas will lie immediately above water. Should a well strike gas under these conditions with oil below the gas, after the latter is exhausted oil will enter the well, and may become very profitable. The last stages of either oil well or gas well probably will be that of a well filled with water.



TYPICAL CONDITIONS UNDER WHICH OIL AND GAS ARE FOUND.

If nature by acting upon a bed of sandstone originally horizontal in position should throw it into the form of a gentle arch, the axis of the arch trending parallel with a mountain range, such an anticlinal arch may become exceedingly productive of either oil or gas, but particularly the latter. It sometimes happens that the direction of one of these arches practically coincides with the direction of an old ocean beach along which pure, clean sand was gathered, producing a porous sandstone capable of holding large quantities of oil or gas. Such a condition produces the best known wells, those of the tremendous capacity of the Appalachian region. Large mountain ranges are not an essential for this condition, because we may have gentle swells in level countries where all the essential conditions are produced as above explained. Such is the case in the great eastern Indiana gas fields. Here a gentle swell or arch in the Trenton limestone has been one of the main factors in determining the location of that unusually rich field. The inclination of the rock bedding planes need not be more than from 5 to 10 feet to the mile, although they may be as great as 20 or 30, or even 100 or 200 feet to the mile. The steeper the inclination, naturally the narrower the productive area is likely to be, because with a rapid dip of the formations the productive sandstone would soon be carried so far beneath the surface that water is almost sure to be present. A study of the simple illustration, Fig. 1, will shew how there may be a series of wells close together, one a good gas well *d*, one an oil well *j*, and another *f* filled with water. The proper way to consider this matter is to assume that all porous sand rocks *g* are filled with water, with an occasional exception of a bubble of gas or oil being found in the water. This bubble may be small or large, even to many miles in horizontal extent. All too frequently, however, such a bubble is narrow and soon exhausted. So long as rains continue to fall on the surface and the water works its way downward, that long there will be a tendency for water to drive out all fluids of lighter gravity, and therefore the water pressure will tend to drive both oil and gas upward and outward. The same agencies cause the water to follow the gas and oil as they become exhausted.

It is easy to imagine certain variations from those given in Fig. 1, so that we may have a body of oil or gas in a sand rock connected directly with a body of water at one side, the water shutting out the oil or gas from the drill hole. Exhausting the water by pumping in such cases would allow the oil gradually to approach the well and ultimately develop into a reasonably good oil well. This condition has been found in many places in different wells and likely will be found many times in the future. It is due to a certain combination of oil and water conditions with the well accidentally being drilled so as to hit the water near the oil bubble.

If the reader will recall what has been said about the irregularity of sandstone production on our present ocean beaches and will understand that all masses of sand rock, whether or not they are producers of oil and gas, were formed along old ocean beaches in the same manner, he will be able to understand some of the perplexing conditions found in many oil fields.

All anticlinal arches have been formed subsequent to the formation of the sand beds. Quite as often they cut them transversely and at various angles. Here, again, we may learn a lesson from the Appalachian fields. It is well established by geologists that, at the time the productive sand beds were accumulating, a long slender arm of the ocean occupied the position now held by the Appalachian mountains, an ocean arm forming an inland sea very similar in character to the Red Sea, or to the Gulf of California. Naturally, therefore, the sand beds or sand beaches were long and slender, paralleling the arm of the ocean. Later, when the mountains were elevated, folds and flexures were produced which, by strange coincidence, almost exactly paralleled the ancient coast line of this inland ocean. If, therefore, a geological section is drawn parallel to the mountain ranges, it shews but little variation, and the given sand rock is approximately at a constant depth beneath the surface. If such a section is drawn transverse to the mountain range, however, then the anticlinal arches and the synclinal troughs become apparent. It is along these great anticlinal regions that the wonderful gas wells of West Virginia and Pennsylvania are found.

In the Mid-Continental oil fields the conditions are slightly different from those of other fields, although they are strongly similar. From good geological evidence it may be stated that the old ocean beach had a trend approximately north and south, bearing a little to the northeast and southwest through the eastern part of Kansas and gradually veering eastward in Oklahoma south of Tulsa. The dip in Kansas is due to influences which produced the Ozark hills in South-west Missouri. In the vicinity of Kansas City, Ottawa, Paola, Garnett, etc., the rocks dip gently to the northwest. Along the southern line of Kansas the maximum dip is approximately west, possibly veering a little southwest. Farther south in Oklahoma, the south-western dip becomes more apparent. The same formations swing around to the east in the vicinity of Fort Smith, where a new set of earth movements have produced effects and the dip of the rock is more often in a north and south direction.

In general, we may look for gentle anticlinal arches trending northeast and southwest in Kansas. They are so mild that they can scarcely be found. In fact, erosion has done its work so well that in many cases the eastern sides of such anticlinal arches have been worn away, leaving the west limbs only. South of the State line the anticlinal regions probably become a little more noticeable and doubtless have a little greater influence. Such a one evidently passes Bartlesville and coincides with the line of gas wells east of Bartlesville. Probably, also, there is a wave crest west of this, closely paralleling the boundary between the Cherokee and Osage Indian lands. In Kansas there are such gentle waves both east and west of Chanute reaching for miles in nearly a north and south direction, and the wonderful gas wells a few miles west of Chanute are along the summit of such an anticlinal ridge, while the oil wells and gas wells lying east likewise are along the summit of a very mild anticline.

In a number of places in the State, anticlinal arches with gentle dips have been found with directions differing from those named. North of Fort Scott a short distance such a one exists, and for more than 10 years the writer has tried to prevail upon prospectors to drill wells along its summit, but thus far without success. Farther west, at Elmdale, and probably reaching all the way from Elmdale to Arkan as City, an anticlinal ridge exists which is moderately productive at Elmdale, Augusta, and Arkansas City. The discovery of gas at the latter place, so far as known to the writer, was accidental. At Elmdale, however, a member of the State Geographical Survey, Dr. J. W. Beele, pointed out the anticlinal ridge to some of the business men of that place, with the result of a nice gas pool being uncovered.

Emphasis, therefore, should be placed upon the statement that anticlines of themselves do not produce gas or oil. Probably we have thousands of unproductive anticlines in America for every one that is productive. A mere anticline of itself is of but little importance. First, there must be a proper accumulation of sand or other material to produce a porous rock into which oil and gas may be forced after being manufactured in nature's laboratory. Next, the oil and gas must have been made and forced into such a porous rock; and lastly, the anticline made must have coincided with these other two conditions. If in an area known to be liable to contain oil and gas beneath the surface, the prospector should seek out anticlinal ridges, which may be detected by the position of the stratified rock at the surface. If he is fortunate enough to find such a structure, he should prosecute his prospecting along such lines rather than elsewhere. If nature in her beneficence has filled the ground with these materials, prospecting along the anticlinal ridges most likely will discover them.

The most marked structural features of Eastern Kansas, in connection with results of surface erosion, are long, slender dip planes extending northeast and southwest across the State. Two of these particularly are well marked. In the vicinity of Uniontown, the Bethany Falls limestone, in connection with others overlying it, forms a prominent escarpment miles in length. According to altitudes marked on the United States Geological Survey topographic sheet of the Iola quadrangle, the top of these limestones 23 miles east of Chanute has an elevation of 1,100 feet. They dip gently to the west and pass under the Chanute shales five or six miles east of Chanute and are reached by wells in the Neosho River valley at Chanute. Their dip throughout this distance is between 300 and 400 feet. Erosion has done its work variably at different places on the upper surface of the limestones, in some places having removed the Chanute shales entirely, and at other places left them from 10 to 75 feet thick. This dip plane with a relatively thin shale and soil covering, reaches many miles northeast and southwest. The eastern limit of it possibly represents the summit of an anticline from which the eastern limb has been removed entirely by erosion. It is difficult to decide definitely what the actual conditions are.

The next prominent dip plane in the State is that on top of the Stanton limestone. In some places the Stanton and Allen limestones coalesce, and elsewhere they usually are so close together they form but one escarpment, while throughout a short distance only is the intervening shale bed thick enough to give them especially different outcropping lines. Their eastern outcropping line practically parallels the outcropping line of the Bethany Falls limestone. Overlying the Stanton is an aggregate of about 300 feet of shales with only a small limestone interbedded—the Kickapoo limestone—which seldom has produced any particular influence on surface features. The Oread limestone, on top of the Lawrence shales, therefore, limits the next escarpment to the west. This gives a long, narrow zone northeast and southwest, with the Stanton limestone at its base and the overlying shales somewhat irregularly, but almost entirely, removed westward to the outcropping of the Oread limestone.

The Stanton limestone underlies the town of Olathe, from which the surface dips gently to the west as far as Lawrence, a distance of nearly 25 miles. Likewise, the same limestone has its eastern outcropping near Kincaid. On the west a stream between Kincaid and Colony cuts through it, but neglecting this we have the dip plane reaching west from Kincaid to the bluffs west of Le Roy, a distance of 28 miles. Again the Stanton limestone lies on the top of the escarpment six miles west of Chanute and forms a dip plane from which the overlying shales have been almost entirely removed westward to the vicinity of Toronto. The outlying hills southeast of Toronto are capped by the Oread limestone, the first important limestone above the Stanton, which gives a dip plane for the Stanton limestone here of about 18 miles.

It is moderately certain that, in some places, at least, the summits of the prominent escarpment are the summit of anticlinal ridges. The Stanton escarpment near Chanute is a good example. Here the underlying shales and limestones dip gently to the east, which tells the story. It is an interesting fact that the large gas field developed west of Chanute is on the summit of this anticlinal arch.

Probably almost no phase of the detailed geology of the Mid-Continental field is of more practical importance than the one now under discussion. The great gas field at Iola is on the dip plane of the Iola limestone, which has an outcropping near Moran at an elevation of 1,100 feet. According to the topographic map, Iola quadrangle, the dip plane is practically uniform to Iola, where the elevation of the upper surface of the limestone is about 90 feet, making a dip of 140 feet in 12 miles. Throughout this distance the overlying shale bed is almost entirely removed, but not with sufficient completeness to expose the limestone all of the way. It is difficult to believe that there is any form of an anticlinal arch here trending northeast and southwest.

No small amount of labour has been expended in investigating this subject. A study of the maps of the counties so far prospected will reveal the fact that the oil fields and gas fields are scattered here and there with apparent irregularity throughout the territory. We have been unable thus far to connect them with structural conditions to a sufficient extent to justify the general conclusion that structural conditions alone control the presence of oil or gas. The comparatively rich oil wells in the Neosho River valley just mentioned certainly are in a cynclinal trough; and, likewise, the gas wells in the same valley, which draw their supply from a sandstone beneath the oil producing sandstone, as already explained, certainly are in a synclinal trough. These first gas wells at Chanute practically gave Chanute its prominence as an oil and gas centre, in spite of the fact that they draw their supply from a structural valley. We must conclude, consequently that, no matter how important structural relations may be elsewhere, they are of only moderate importance in Kansas.

THE RUSSIAN PETROLEUM AND LIQUID FUEL COMPANY, LIMITED.

RECONSTRUCTION UNANIMOUSLY AGREED TO.

An extraordinary general meeting of the shareholders of the Russian Petroleum and Liquid Fuel Co., Ltd., was held on Tuesday, at River Plate House, London, E.C., Mr. Herbert Allen (the chairman) presiding, when the resolution passed at a meeting of the company held on May 10th last, altering the articles of association of the company, was unanimously confirmed.

A meeting of the holders of preference shares was then held, for the purpose of considering and, if thought fit, passing a resolution approving a scheme of reconstruction and a draft agreement for carrying the scheme into effect.

The Chairman formally moved the resolution, and invited questions and criticisms of the scheme.

Mr. Richard Barnett seconded the resolution.

Mr. Fowler asked whether there was any chance of the preference shareholders ever getting any return. Was the new company likely to succeed, now that there were so many oil companies in existence?

The Chairman said that was a very important question, and he would answer it in the course of a few remarks of a general nature which he proposed to make before putting the resolution to the meeting. A reconstruction scheme such as that now before them could be looked at from two totally different standpoints—first of all, as a financial operation pure and simple, and, in the second place, as a commercial proposition. It was all very well for a board of directors to get a scheme of reconstruction through, and voted upon in brilliant fashion, but shareholders very properly before they put their hands in their pockets to pull out 5s. a share, looked ahead, and asked themselves what was to follow. That was a question which he would answer presently. They would first of all look at the reconstruction proposal purely as a financial operation. It was very dangerous, as they knew, to prophesy, and he personally rarely indulged in prophecy; but in the case of this reconstruction he did not hesitate to forecast a great and unqualified success. That was a strong expression of opinion on his part, and it was such an expression of opinion as he very rarely indulged in, but in this case the expression was no stronger than the conviction. At the present time they had a wide public interest—an interest which they would not have dreamed of a few months ago—in the shares of established oil companies. That in itself was a very important consideration, and a great point in their favour; for it meant that the present was a most opportune moment to launch their scheme, and the soundest financial schemes in the world were no good unless the markets and the times were ripe for them. In the next place, the Baku oil industry was under a passing cloud, and in consequence of that the directors had been able able to make arrangements with debenture holders and other creditors which they would not have listened to in more prosperous times. That was advantage number two, and a very great advantage.

Then, again, in consequence of this temporary depression at Baku, they could get their boring, which was their principal expenditure, done at abnormally low rates, and that meant that every penny of the capital which they now proposed to raise would go much further than it would do in normal times. That was an advantage which would be reflected in the balance-sheets of the company in times to come. In the meantime, whilst they were laying out their capital and studding their properties with wells—which was what they needed if the production was to be brought up to a satisfactory level—and whilst they were putting their house in order generally, this depression would probably pass away, and they might reasonably hope for a large production simultaneously with better prices. As their scheme became better understood—and the present price of the shares and debentures of the company satisfied him that it was not yet half understood—and as the commercial potentialities of the company were fully realised, he thought the demand for the new company's shares would be such that when their first balance sheet appeared they would find that every debenture and every other liability had disappeared. They would probably not have a penny of indebtedness either in this country or in Russia; they should have over £200,000 of free working capital, and the company should have a chance of success such as it had not enjoyed since the palmy days of ten years ago. That was his conviction, and if he had not that conviction and did not feel it very strongly he would not have made himself responsible for the scheme that had been brought before them. As to the commercial future of the company, in regard to which a shareholder had just put a question, there was no limit to the estimates and anticipations which might be indulged in, and the directors could give them figures, if they were so disposed, which would satisfy the most insatiable appetite for dividends. But that was not his method, and he would content himself with reminding them simply of the one solid fact that they possessed properties which, under normal conditions and with efficient management, were capable of giving a very handsome return on all the money which it was now proposed to raise.

More for his own guidance than anything else, he had, however, been making a few calculations of what might be hoped for as a result of the liberal capital expenditure for which they were now making provision. It should be quite possible to get the annual production up to 20,000,000 poods; it had been, he believed, as high as 30,000,000 poods; but for the purpose of illustration he would take it at 17,500,000 poods. That was the first point. The next question was, having produced so much naphtha, what were they going to sell it for? There was very little to guide them as regarded the future, except what had taken place in the past, and he found that the average price of crude naphtha in the last four years or so had been somewhat under 24 copecs per pood. It might be a fair inference, therefore, that within the next three or four years it would average the same figure; but he would assume that it would average only 18 copecs. Then the next thing to consider was how much would it cost to get that naphtha? He, personally, would be very disappointed if they could not get the cost of production down to 8 copecs per pood. On that basis—that was, a production of 17,500,000 poods, an average price of 18 copecs per pood, and a production cost of 8 copecs—they would have a return of 1,250,000 roubles per annum, or approximately £190,000 sterling. Under existing conditions even £190,000 would not benefit the shareholders of this company, because the fixed charges alone amounted to practically £150,000, and that was without any allowance for depreciation. But the attraction of their scheme was that it got rid of all those fixed charges, and left the entire net profits of the company in future distributable among the shareholders. To pay 10 per cent. on the entire nominal capital of the new company would need only £140,000 per annum, and 10 per cent. on the nominal capital was equal to 20 per cent. on the amount of money which it was now proposed to raise. He did not for a moment want to put this forward as a hard-and-fast estimate but merely as a basis upon which the shareholders could form their own calculations. On some such lines as these they could work out the probable future of the company for themselves. It must not be assumed, however, that 10 per cent. or 20 per cent., according to how they read these figures, was the maximum of what a company like this could reach.

Oil enterprises were necessarily speculative, but when shareholders were asked to put up money they naturally wanted to know, at all events, that there was a reasonable prospect, to say the least, of a very decent return. Before he sat down he would like to say a word with regard to the large measure of support which had been accorded to the directors' proposals. He had never known more thoroughly representative meetings of any company than the meetings of this company which he had had the honour to preside over; but not only had the voting been the heaviest in his experience, it had been the most unanimous, and—in the face of a reconstruction involving an assessment on the shareholders—he thought it must be almost a record. They had already held two meetings; they were now in their third meeting, and they had still two more meetings to hold that day. At each and all of those meetings the proxies with which the shareholders had been good enough to entrust the board represented over half of the entire nominal capital of the company. The best evidence, he thought, which they could have of the fairness of the scheme to the shareholders as a whole was the fact that this support was almost equally divided between the preference and ordinary shareholders.

Answering further questions, the Chairman said there would be 1s. per share payable on application and allotment, and that subsequent calls, which would not exceed 1s. per share, could not be made at shorter intervals than three calendar months.

The resolution was then put and carried unanimously.

A meeting of the ordinary shareholders was afterwards held, and a similar resolution was carried unanimously.

An extraordinary general meeting was then held for the purpose of considering resolutions providing for the voluntary winding up of the company, with Mr. A. J. Milne as liquidator, and its reconstruction.

The resolutions were unanimously adopted, and the proceedings terminated.

SCIENTIFIC NOTES.

At Utrecht there is a very large works producing gas for illuminating purposes as well as for filling balloons out of a mixture of two parts of petroleum and one part of gas tar. The composition of the gas in comparison with carburetted water gas and coal gas is as follows:—

	Petroleum and Tar Gas.	Carburetted Water Gas.	Coal Gas.
Carbon dioxide	0·2	5·3	2
Heavy hydrocarbons	11·6	9·2	5
Oxygene	0·6	—	—
Carbon oxide	2·9	29·7	9·0
Hydrogene	46·5	36·2	47·9
Methane	31·3	13·9	34·0
Nitrogene	7·0	6·2	3·0
Calorific value	5,490	4,470	5,300
Specific gravity	0·45	0·70	0·44

At the higher temperature the gas obtained is still richer in hydrogene and consequently still more suitable for filling air navigation vessels. The gas has then the following composition:—Carbonic acid gas, 0·2 per cent.; heavy hydrocarbons, 5·2 per cent.; oxygene, 0·8 per cent.; carbon monoxide, 12·0 per cent.; hydrogene, 73·2 per cent.; methane, 8·2 per cent.; and nitrogene, 0·4 per cent.; specific gravity, 0·33. For obtaining 160 cubic metres of this gas, 100 kilogrammes of the mixture of petroleum and gas tar. At a still higher temperature a gas with 85 per cent. of hydrogene and a gravity of 0·16 can be obtained.

—*—

New compositions have been obtained in Germany by Mr. Augustus Lone for impregnating wood and preserving it from rotting. The compositions consist of mixtures of derivatives of hydrocarbons of the benzene series, namely, of dinitrobenzene, dinitrotoluol, dinitrochlorbenzene, etc, all of which can be prepared from the low boiling portions of petroleum. The most interesting fact is that the monoderivatives possess no antiseptic properties at all, while the dinitroproducts possess them in the highest degree.

GERMAN PETROLEUM IMPORTS DURING MARCH.

The German imports of petroleum products during March were as under (in tons):—

From	Illuminating. Oil.	Lubricating Oil.	Benzine.	Residuals & Solar Oil.
Russia	3,919	8,696	2,083	—
United States	59,668	9,832	4,216	296
Austria	9,007	3,527	1,234	3,291
Roumania	1,688	—	1,481	—
Dutch Indies	—	—	2,836	1,668
Other Countries	15	239	229	83
Total	74,297	22,294	12,072	5,338

The imports for the first three months of the year amounted to:—

From	Illuminating Oil.	Lubricating Oil.	Benzine.	Residuals & Solar Oil.
Russia	13,292	19,496	2,942	—
United States	297,611	33,673	12,534	2,900
Austria	40,199	7,723	3,431	9,673
Roumania	4,625	—	4,800	—
Dutch Indies	—	—	9,742	2,841
Other Countries	49	615	523	208
Total	355,776	61,507	33,972	15,622
Jan.-Mar., 1909	334,876	47,277	24,833	14,370

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NEW ENGLISH OIL COMPANIES.

TUSCAN PETROLEUM SYNDICATE, LIMITED.

Registered May 18th, with a capital of £1,000 in £1 shares. Objects: To acquire, develop, and turn to account any lands, farms, mines, mining rights and oil, petroleum, coal, asphalt or bitumen bearing properties in any part of the world. Private company. The first directors (to number not less than two nor more than seven) are to be appointed by the signatories. Qualification, one share. Remuneration, £50 each per annum (chairman £75) and 10 per cent. of the surplus profits after 10 per cent. dividend is paid.

PETROLEUM EXPLORATION SYNDICATE, LIMITED.

Registered with a capital of £50,000, in 48,000 ordinary shares of £1 each and 40,000 deferred shares of 1s. each. Business: Refiners of and dealers in petroleum and other mineral oils, natural gas, asphalt, ozokerite and other substances and products, etc. Minimum cash subscription, 10 per cent. of the shares offered to the public. First directors (to number not less than three nor more than five) are H. Pelham-Clinton, 53, Eccleston Square, S.W.; Sir Frederick Frankland, Bart, 3, Queen's Gardens, Windsor; and E. Schenk, 1, Leadenhall Buildings, E.C. Qualification, £100. Remuneration, £100 each per annum (chairman £150) and a percentage of the profits. Registered office, 1, London Wall Buildings, E.C.

PETROLEUM PROMOTIONS, LIMITED.

Formed with a capital of £50,000, divided into 45,000 ordinary shares of £1 each and 100,000 management shares of 1s. each. Business: To search and prospect for mines, deposits, wells, veins and seams of petroleum and other oils, asphalt, bitumen, metals, minerals, precious and other stones, to promote companies for the taking over or working of any oil-bearing or other properties, etc. Minimum cash subscription, 500 shares. First directors (to number not less than two nor more than seven) are Mr. T. J. Ive, 5, Copthall Buildings, E C. (director Eastern and Western, Ltd.); Col. P. H. Massy, 12, Aynhoe Mansions, Kensington, W.; Messrs. E. Cattanach, Alderman's House, Alderman's Walk, Bishopsgate, E.C. (director Eastern and Western, Ltd.); S. J. Aldridge, Sunnydene, Woodside Green, Woodside, S.W. (director Aldridge's, Ltd.); and F. D. Norman, Thamesfield, Maidenhead (director Eastern and Western Ltd.).

UNION OILFIELDS OF MAIKOP LIMITED.

The capital of this company is £200,000, in 5s. shares. Objects, to carry on the business of manufacturers and refiners of and dealers in mineral and other oils, mines, etc., to acquire any oil-bearing land in Russia and to adopt an agreement with the Baku Standard Agency, Ltd. The signatories are:—L. A. Scott Elliott, West House, Glebe Place, Chelsea, S.W.; J. Eyre, Great Entore, Witley, Surrey; W. W. Rutherford, M.P., Heathfield, Waterloo, Liverpool; R. H. Haviland, 40, Trinity Square, E.C.; T. H. Peatting, Waterloo Place, Leamington; W. O. Hughes, 101, Salehurst Road, Brockley, S.E.; J. Hunter, 37, Chambers Street, Edinburgh (1,000 shares each). Minimum cash subscription, 10 per cent. of the shares offered to the public. First directors (to number not less than two nor more than seven) are L. A. Scott-Elliott, J. Eyre, R. H. Haviland, T. H. Peatting, J. Hunter and H. A. Watt. Qualification, £200. Remuneration, £200 each per annum (chairman £250) and a percentage of the profits.

MAIKOP OIL TERRITORIES.

Registered with a capital of £175,000 in 5s. shares. The objects of the company are to acquire any petroleum or oil-bearing lands in Russia or elsewhere, and to adopt an agreement with the M. K. Syndicate, Ltd. First directors (not less than three nor more than six) to be appointed by signatories. The offices of the company are at 14, 15, and 16, Cockspur Street, S.W.

BUKOWINA PETROLEUM COMPANY.

Registered with a capital of £200,000 in £1 shares. The objects of the company are to carry on the business of refiners of and dealers in crude and refined oils, sulphate of ammonia, and all products or by-products of oil and petroleum, etc. The signatories are:—Messrs. G. Macdonald, 560-562, Salisbury House, E.C.; H. A. Hedgewald, 27, Douglas Road, Goodmayes; P. G. Macdonald, 575-577, Salisbury House, E.C.; T. C. Wilkins, 29, York Road, Forest Gate; W. F. Cooke, 124, Malpas Road, Brockley, S.E.; T. W. Sale, 3, Thayer Street, W.; T. Hamilton, 562, Salisbury House, E.C. First directors (not less than three nor more than seven):—Messrs. G. Macdonald and L. R. C. Boyle, M.V.O. The offices of the company are at 575-577, Salisbury House, E.C.

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NOTES FROM THE OIL FIELDS.

ROUMANIAN NOTES.

Poiana de Verbilau.—This very interesting district, in which the Roumanian geologists have the utmost confidence, is now the centre of great boring activity. The Première Société de Forage is executing a number of borings on behalf of the German-Roumanian Trade Syndicate and the Poiana Romana.

Production at Moreni.—The production at Moreni continues to keep to the level of 1,700 to 1,750 tons a day. The Romano-American has about 800 to 850 tons daily, out of which the well No. 31 alone yields 650 to 700 tons. The Regatul Roman has 450 to 500 tons, and the Astra about 300 tons daily.

The International Company.—The production of this company is now about 110 tons per day, of which the well at Gura-Ocnitsei yields 85 tons. The company is now boring six new wells on the Gura-Ocnitsei field and repairing other wells which had caved. When all these wells are completed the production of the company will be considerably increased.

Prize for Researches on Petroleum.—The University of Bucarest has opened a competition for a prize of 500 francs to be awarded for a work on the following subjects:—(1) Physics: standard measure of the illuminating power of various kerosenes of the country; (2) Chemistry: chemical composition of Roumanian petroleum and the nature of its components.

The Petrolul Company.—The production of this company is on the increase. At Calinet the company has three wells in production. At Campina it has constructed ambars, has enlarged the works and offices, built dwellings for the staff, stables for horses, and laid down a new steam pipe line. It is now engaged in fixing an electric motor for power and illumination purposes, and also erecting two iron tanks, of which one at Calinet is now ready. It has lately sold to the Steaua Romana 3,500 tons of crude oil.

A Fire at Tintea.—On the 25th of May lightning ignited a reservoir of petroleum belonging to the Credit Petrolifer. The fire was soon communicated to two other reservoirs, to pumping stations and to boiler houses. At midnight, sparks from the burning oil ignited a quantity of crude oil accumulated in some open reservoirs and with a little wind the fire would have very soon destroyed half of Tintea property, but fortunately owing to the strenuous efforts of the staff of all the companies concerned, the fire was localised and further damage prevented.

AMERICAN NOTES.

Another Oil Boom.—There is a great boom in oil lands now being experienced in Reeves county, Texas, where land values are soaring up to over $15,000 per acre. It is stated that the first two wells drilled have disclosed the possibilities of developing a field yielding the finest grade of oil in the south-west.

The Caddo Field.—The Caddo field of Louisiana is coming in for considerable attention at present, owing to the fact that several very fine producing wells have been completed in the territory. The J. C. Trees Oil Company's No. 9 well has been drilled deeper, and is now producing several thousand barrels of oil daily.

The Standard Oil Company of Louisiana.—According to advices from Nashville, Tenn., the Standard Oil Co. of Louisiana, with a capital of $5,000,000, is to take the place of the Standard Oil Co. of Kentucky, in Tennessee, which was ousted recently by the United States Supreme Court. The whole of the properties will be taken over by the new organisation.

Pipe Line Report for April.—The total receipts of oil from the wells in Pennsylvania, West Virginia, New York, Ohio, Indiana and Kentucky during April amounted to 2,757,720 barrels, a figure which is slightly below the total for the preceding month. For the month the deliveries of oil were 6,272,656 barrels, the total stocks on hand at the close of the month being approximately 17,000,000 barrels.

Californian Production during April.—Elsewhere in this issue we give details of the production of the Californian fields during March, when a total output of over 6,000 000 barrels was reached. Though the definite figures for April have not yet come to hand, it is generally agreed that the yield for that month has been greatly in excess of the March figures.

The Standard's Big Loss by Fire.—The Standard Oil Co. recently sustained a great loss of crude oil in California when the oil in its large reservoir near San Paolo on the San Francisco Bay took fire, and consumed about 170,000 barrels of Kern River crude. Fortunately, the reservoir was not filled at the time, otherwise 300,000 barrels of crude would have been consumed.

An Estimate of California's Extensive Oil Deposits.—Mr. Ralph Arnold, of the United States Geological Survey, who is now in charge of the investigations which are being conducted in the Californian fields, estimates that at least 8,500,000,000 barrels of petroleum are below ground awaiting the drill. This should be encouraging for a few companies who as yet have not struck oil even in the smallest quantities.

RUSSIAN NOTES.

The Tcheleken Spouter.—The Tcheleken spouter on Mr. Gadjinski's property again shews great activity.

New Claims in the Kuban District.—The entering of new zaiavkas in the Kuban district is proceeding very rapidly. During March and April 97 allotments were granted.

Reduction of Freights.—A conference of trade representatives in Moscow has passed a resolution demanding from the railway administration a reduction of petroleum tariffs in view of increasing the exports to the Balkan countries.

Reduction of Mantascheff and Co.'s Capital.—Messrs. Mantascheff and Co. have obtained the authorisation to reduce their capital from 22,000,000 roubles to 11,000,000 roubles. New shares of 250 roubles each will be issued, every new share replacing two old ones of same value.

The Surakhany Spouters.—The spouter on Mirzoeff's property, which broke out on the 3rd of May last, has been inactive for a whole week, but again started spouting oil to the amount of 8,000 to 10,000 poods a day. Benkendorf's spouter continues to yield from 35,000 to 40,000 poods daily.

Deep Boring at Uchta.—The Mining Department of the Ministry of Industry has instructed Mining Engineer V. T. Stukatcheff to superintend deep boring works on the Uchta petroleum fields; 95,000 roubles having been assigned for a trial boring of a well at a depth of 1,000 feet.

Activity at Maikop.—Dealings in claims are still energetically being made. The limits of the claimed area are at present: on the north, up to the town of Temruk; on the west, to the seashore; on the east, to the river Belaja; and on the south, to the Oplenen mountain. In its widest part the claimed area is now 45 versts.

Petroleum at Khurdalan.—Land is eagerly leased from the peasants in this village, who now are asking for it ten times as much as a short while ago. The oil is of good quality, and in many spots is found at a depth of only 60 feet. Oil also exists in the neighbouring village of Sarai, where many wells are now being dug.

New Petroleum Fields.—New petroliferous land has been discovered in the villages of Chragi and Kobi in the Baku district. The peasants obtain large quantities of oil from hand-dug holes. The administration of the district is now besieged by applications for plots. Many Baku oil producers have applied to the Mining Department in St. Petersburg for permission to erect derricks.

Russian Coal Industry and Petroleum.—The crisis in the Russian coal industry continues to increase and to spread over wider areas. Owing to better conditions in the Baku fields and the great activity in the new fields of Maikop, Tcheleken, etc., coal has more and more to recede before petroleum. Even the traditional consumers of coal—the Kieff sugar refiners—have now passed over to the use of liquid fuel.

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LATEST QUOTATIONS OF PETROLEUM SHARES.

ENGLISH COMPANIES.

This list is restricted to companies who have paid dividends or who are producers.

Company.	Capital Paid Up.	Value of Shares.	Latest Prices.
Assam Oil	£310,000	£1	$\frac{9}{16}$-$\frac{11}{16}$
Bibi-Eybat Petroleum Co. ..	£380,000	£1	4/6-5/6
Californian Oilfields	£400,000	£1	$5\frac{3}{8}$-$5\frac{5}{8}$
Commonwealth Oil Co. ..	£500,000 Pref.	£1	$\frac{11}{16}$-$\frac{13}{16}$
,, ,, ..	£225,000 Def.	£1	$\frac{11}{16}$-$\frac{13}{16}$
Lobitos Oilfields, Ltd. (£1) ..	£360,000	£1	30/0-31/0
Pacific Oilfields, Ltd. (£1) ..	£200,000	£1	20/6-21/6
Russian Pet. & Liquid Fuel ..	£500,000 $6\frac{1}{2}$% Pref.	£1	1/3-1/9
,, ,, ...	£600,000 Ord.	£1	1/3-1/9
Schibaieff Petroleum ..	£575,000 6% Pref.	£5	6/0-8/0
,, ,, ...	£575,000 Or.l.	£1	1/0-2/0
Shell Transport & Trading ..	£2,300,000	£1	93/0-94/0
,, ,, ,, ..	£1,000,000 Pref.	£10	$11\frac{1}{8}$-$11\frac{3}{8}$
Spies Petroleum Company ..	£465,000	10s.	25/0-26/0

RUSSIAN COMPANIES.

Company.	Nom. Value in Roubles.	Latest Quotations. Lowest Roubles.	Latest Quotations. Highest Roubles.
Baku Naphtha Co.	100	298	300
,, ,, ,, (issue of 1908) fully pd.	100	327	328
Balakhany Naphtha Co.	250	—	—
Caspian Society	1,000	4,450	4,900
Mazout Co.	250	—	—
Melikoff, A. C.	250	—	—
Mirzoeff Bros.	250	—	—
Naftalan Co.	250	—	—
Naphtha Co. "Kavkas"	.250	—	50
Naphtha Trading Co., A. I. Mantacheff & Co.	250	124	126
Neft Co.	250	260	—
Nobel Bros.	5,000	10,900	11,000
,, ,, ...	250	—	598
Rops and Co. V...	250	315	316
Russian Naphtha Co.	250	—	—
Society Mazout	250	—	400
Ter-Akopoff Co.	250	—	—
Tumaieff & Co., J. G.	250	96	—
Volga-Caspian Naphtha and Trading Co	250	—	—
,, ,, ,, (Second Issue)	250	—	—

SCOTCH COMPANIES.

Supplied by Messrs. MACLEAN AND HENDERSON, STIRLING.

Company.	Capital Paid Up.	Value of Share.	Latest Prices.
Anglo-Persian Oil Co., Ltd., 6% Part Pref. (10s. paid)	£150,000	£1	11s. 3d.
Do. 5% Deb. Stock	£600,000	£100	£96 10s. 0d.
Broxburn Oil Co., Ltd., Ord. 17/- pd	£235,000	£1	£1 15s. 6d.
Do. 6% Cum. Pref. ..	£100,000	£10	£11 13s. 9d.
Burmah Oil, Ord.	£1,100,000	£1	£5 17s. 6d.
Do. Pref.	£250,000	£1	£1 7s. 6d.
Dalmeny Oil Co., Ord. (7 paid) ..	£37,800	£8 10s	£5 2s. 6d.
Do. 5% Pref. ..	£18,900	£7	£4 10s. 0d.
Oakbank Oil Co., Ltd., Ord.	£170,000	£1	£1 15s. 6d.
Do. Pref. (£1 paid)	£100,000	£1	£1 3s. $4\frac{1}{2}$d.
Pumpherston Min. Oil Co., Ld., Ord. (17s. paid)	£110,500	17s.	£8 0s. 0d.
Do. 6% Cum. Pref.	£100,000	£10	£12 13s. 9d.
Tarbrax Oil Co., Ltd. Ord. (£1 pd.)	£65,000	£1	£1 15s. 9d.
Do. 6% Cum. Pref.	£40,000	£1	£1 4s. 6d.
Young's Paraffin Co., Ltd., Ord. ..	£452,808	£4	£3 2s. 6d.
Do. "B" Deb...	£150,000	£100	£150 0s. 0d.

DUTCH COMPANIES.

Company.			Latest Quotations. (per cent.)
Dordtsche Petroleum Industrie My. ..	..	Aand.	174
,, ,, ,, ..	Pref.	,,	$194\frac{1}{2}$
Int. Roum. Petroleum Maatschappij ..	..	,,	$25\frac{1}{2}$
Royal Dutch Petroleum Co.	Old	,,	553
,, ,, ,, ...	New	,,	522
Mœara Enim Petroleum Maatschappij	..	,,	$265\frac{1}{2}$
Oklahoma Petroleum Co.	Pref.	,,	$114\frac{3}{4}$
,, ,, ,, ...	Ord.	,,	$47\frac{1}{2}$
Perlak Petroleum Maatschappij ..	..	,,	138
Sumatra Palembang Petroleum Maatschappij		,,	209
Zuid Perlak Petroleum Maatschappij ..	Pref.	,,	171
Union Petroleum Co.	..	,,	$85\frac{3}{4}$
Bibi-Eybat Petroleum Maatschappij ..	..	,,	$27\frac{7}{8}$
Russian Petroleum and Liquid Fuel Co.	..	,,	11
,, ,, ,,	Pref.	,,	$11\frac{1}{2}$
,, ,, ,,	(6% Debs.)	,,	$59\frac{1}{2}$
Schibaieff Petroleum Co. (Ord.) ..	..	,,	9
,, ,, ...	Pref.	,,	$9\frac{3}{8}$
Shell Transport and Trading Co. ..	Ord.	,,	464
Tulsa Petroleum Co.	..	,,	95

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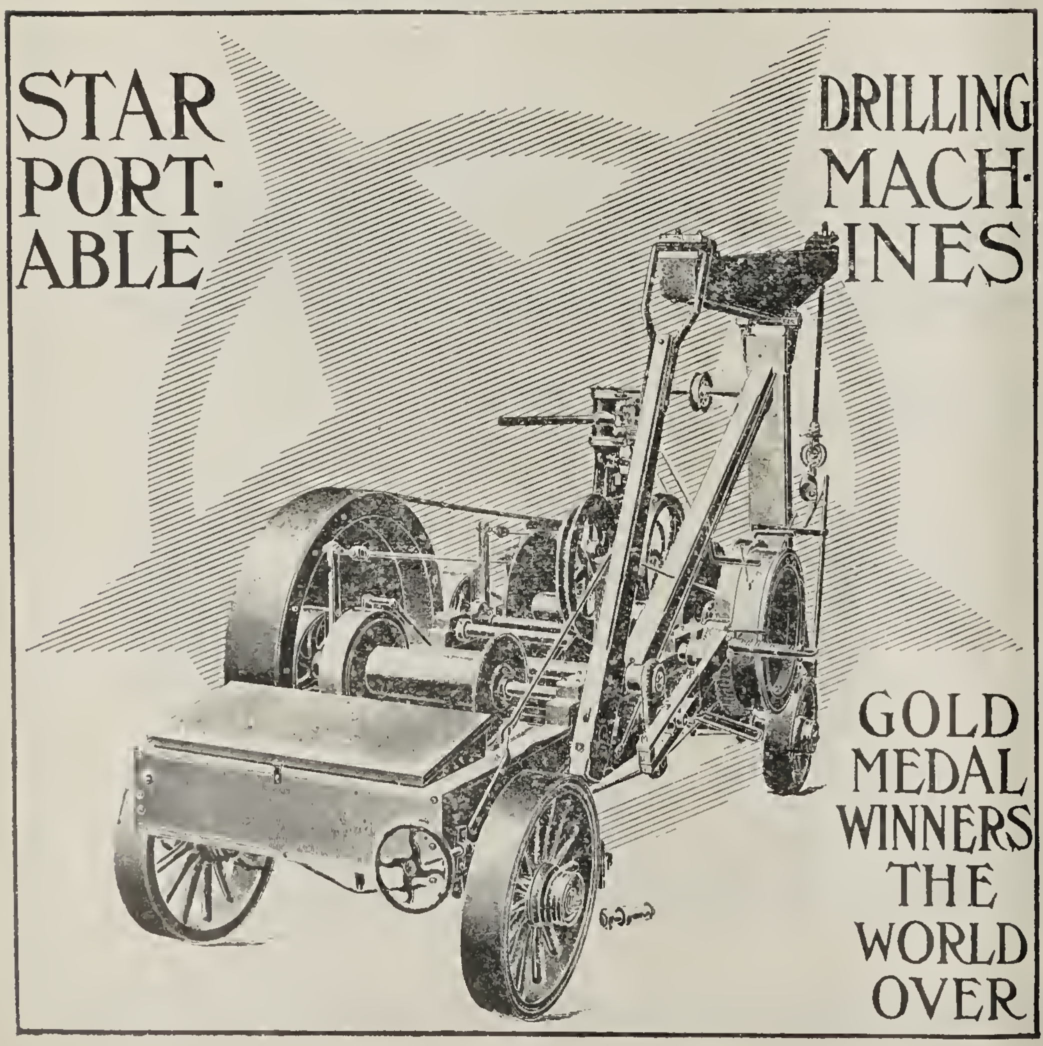

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American Office: 111, Broadway, New York.

Saturday, June 4, 1910

STIRRING TIMES IN OIL.

THE news which has reached us of recent date with regard to the more important developments which are being conducted almost all the world over for petroleum, unmistakably point to the fact that we are about to experience, if not at present witnessing, "stirring times in oil."

So far as the recognised "Oil Share Group" on the English Stock Exchange is concerned, we are aware that for some months past public attention has become more attracted to the remarkable prospects which are in store for well-conducted companies who choose to seriously exploit the fortunes of oil, and although for the moment, speculation is very limited, there is not the slightest doubt that in the very near future, we shall see a mighty revival of interest, which, we believe, will be without parallel. But this is simply the financial aspect of the question, and upon which we do not intend to further touch at present.

We would rather dwell upon the more important aspect of the stir in oil—that is the aspect of real progress which we may confidently expect will be the result of the present boom. At the commencement of the present activity, we admit that that wonderfully prolific new region in the Caucasus was the venue of attention, and rightly so, since from what we personally know, there are few petroliferous districts which offer such inducements for the profitable employment of English capital as does the Kuban Government region.

Now, however, the interest in oil ventures has taken a wider turn, and the expansion promises to be more or less permanent by reason of the very promising territory to which public attention is turned. Let it be made clear, at the outset, that our confidence in Maikop is unchanged. There we recognise to the full the potentialities of a wide prolific territory which, given systematic and careful development, promises to practically revolutionise the European oil trade. But the fact remains that where interest in petroleum enterprises is spread over the four corners of the earth, rather than concentrated in one spot, the opportunities for ultimate profitable results are far more assured.

To-day, everything points to the fact that at last petroleum is to receive serious encouragement from the hands of the capitalist—especially in England. Taking Russia first, and excluding the new Maikop territory, we see a direct interest in the new fields which are being opened out in the widely scattered corners of the Tzar's dominions. From the Grosny, the Tcheleken and the Kertch fields in the southern centre of Europe to the far away territories of Russian Sakhalin, public interest in the exploitation of the petroliferous regions is growing at a rapid rate, and thus the decay of Russia as a prominent supplier of petroleum and its products, is certainly out of the question altogether.

America, too—that land of oil wealth—is not now behind in its attractiveness for oil speculators. There are, as a matter of fact, no oil fields in the world which have progressed at such a substantial rate as have those in the western hemisphere. The Mid-Continental fields as well as those of California, deserve special mention upon this score. Their wealth of mineral oil is admittedly quite beyond the reckoning of statisticians, for both vast territories are to-day pouring forth a flood of oil which a few years ago would have brought prices down to almost vanishing point. But, to-day, not so. The greater the quantity of oil above ground, the greater is the demand for products, and with the continuously extending use of liquid fuel in every direction, there appears to be no over-production.

Change, of course, is the constant feature of the petroleum industry, but recent history has shewn that these constant changes place the industry in a better position than it was previously. It needed an enormous production of crude oil in California to suggest to the master minds the feasibility of its being profitably employed in the refineries of Japan, or consumed in the smelting furnaces of New Mexico, thousands of miles away, and it was also the over-production of the Mid-Continent fields which was the creation of a gigantic pipe line by which the Oklahoma crude to-day meanders through its long course to the Gulf of Mexico there to be shipped to almost all parts of the world as liquid fuel.

Texas, not long ago looked upon almost as a dead letter, has awakened with the public interest in oil enterprises, and new areas are now profitably responding to the drill, while the recent striking of several wells of the gusher type in the Louisiana fields are evidence that practically unknown territory may easily be turned into a veritable mine of wealth.

The southern part of the new continent is also commanding great attention at the present time in regard to oil developments, while in Trinidad near by, English interest is closely centred, not only on account of the successful results achieved by drilling, but principally by reason of the important position of the island geographically.

Of the other territories which to-day come in for considerable attention by reason of their wealth of petroleum deposits, we would mention those centrally situated fields in Roumania and Galicia. Here at the very doors of vast consuming centres we find territories capable of supplying an almost unlimited demand for petroleum products, each of them in a position to yield splendid returns for capital invested.

Thus we see that there is every reason for the present stirring times in oil. To-day petroleum and its products have made a name for themselves throughout the industrial world, while on the sea, as on land, their value has never been so appreciated. Two important points stand out as certain facts—whatever the demand for petroleum products, it can be more than supplied, while to-day's supply is but minimised by the demand. The wider the application of oil, the greater will be the production, and this being so, remembering, as we must, the profitable nature of petroleum enterprises all round the stirring times in oil, which the world is witnessing to-day, and which will become more intensified as time goes on are more than amply justified.

THE TIN PLATE MARKET.

Messrs. Norton, Owen & Co., of 4, Bishopsgate Street Within, London, E.C., report under date June 2nd, 1910, as follows :—

The market is steady, the works are fully employed, and prices are unchanged as below :—

IC	18¾ × 14	124 sheets	110 lbs.	13/9 to 13/10½ per box.
IC	19¼ × 14	120 ,,	110 ,,	13/9 ,, 13/10½ ,,
IC	20 × 10	225 ,,	156 ,,	19/1½ ,, 19/3 ,,

F.o.b. Wales. Tin lining and iron hooping extra.

PETROLEUM ENTERPRISES NOW BEFORE THE PUBLIC.

MAIKOP SHIRVANSKY OIL COMPANY, LIMITED.

This company, with a share capital of £150,000 composed of ordinary shares, went to public issue last week with 70,000 of its £1 shares. The board of directors includes the following names:—Mr. William Tregarthen Douglass, M.I.C.E. (chairman of the General Petroleum Properties of Trinidad, Ltd.), Mr. Robert Windsor Skipwith, Mr. James Harrower, and Mr. Lindon Wallace Bates (director of the Maikop Oil and Petroleum Producers, Ltd.), the registered offices being at 62, London Wall, E.C. This company acquires from the Maikop Neftannoie Syndicate, Ltd., two contracts which that syndicate has secured for the sale to it of the rights and obligations in respect of seven certificates of claim granted over areas in the Maikop fields. The plots are numbered 608, 653, 612, 615, 625, 626 and 627. The purchase price for the seven plots is £50,250, the bulk of which is paid in the allotment of shares.

OIL VENTURES, LIMITED.

This company, with a share capital of £50,000, divided into 495,000 ordinary shares and 5,000 founders' shares both of 2s. each, went to the public last week with an issue of 250,000 ordinary shares of 2s. each. The directors of the company are Sir Brodrick C. D. A. Hartwell, Bart., Sir Norman Robert Pringle, Bart., and Mr. Bailie William Borland, J.P., W. W. Macalister and Co. being the secretaries, and the registered offices are at 80, Coleman Street, E.C. As the title suggests, the company has been formed for the purpose of acquiring rights over and to deal with oil properties, and to assist in promoting the same.

THE CONSOIDATED OIL FIELDS OF CALIFORNIA, LIMITED.

Last week this new company, with a capital of £175,000 divided into 350,000 shares of 10s. each, offered 270,000 shares to the public. The objects of the company are to acquire and develop two partly developed oil and gas properties in California. One of the properties consists of 700 acres known as the Bonita oil property, and the other, consisting of nearly 2,100 acres, is known as the Ramona oil property, but adjoining the two properties is 3,000 acres of proven though undeveloped land, which the company has also acquired, making 5,800 acres in all. The directors of the company are Sir Henry Wardlaw, Bart., Major-General Sir Norman Stewart, Bart., Mr. Henry J. Humphrey, Mr. A. J. Macphail, and Mr. T. Hooke, F.I.S.A. The company's offices are at 65, New Broad Street, E.C.

ALGERIAN OILFIELDS, LIMITED.

Registered with a share capital of £500,000, divided into £1 shares. This company went to public issue during the present week with an issue of 200,000 of its shares. The company acquires the right to prospect for oil under a concession from the French Government upon an area of 8,000 hectares (or approximately 20,000 acres) situate in the Department of Oran, Algeria, of which land, it is stated, a considerable portion has been proved to be oil bearing. In order to facilitate the working of the area, the company acquires 375 acres of freehold land, 4,000 acres of leasehold, and options over the remaining 15,625 acres either to lease all or any portion thereof. A report from Sir Boverton Redwood which is contained in the prospectus states that the burning quality of the kerosene is excellent, and from his own knowledge of Algeria, together with the particulars supplied to him of the territory in question, he believes the undertaking will be a profitable one. Mr. Rousseau, civil engineer, who has had many years' experience upon the fields, and who has been appointed general manager in Algeria, states that a sum of £50,000 has already been spent in developing the territory. Upon the property in the M'Sila area there are fifteen wells, all of which are oil bearing, while in the Medjila area there are seventeen wells, all oil bearing. The concessions are situated about forty miles from seaboard, and only seven from the railway. One great advantage which the new company will have will be that the petroleum products from the properties of the company will be exempt from the French customs duties, which ordinarily vary from £3 11s. 3d. per ton on crude oil to £11 17s. 6d. per ton on paraffin wax. The directors of the company are Sir Thomas Barclay, M.P., Mr. George Macdonald, Sir William Ramsay, Mr. John E. Dudley Ryder, Mr. George A. Wilson and Captain Algernon Hastings Neale. The registered offices of the company are at Clark's Place, Bishopsgate, London, E.C.

LONDON PROMOTING TRUST.

This company, with a share capital of £25,000 shares, divided into 250,000 shares of 2s. each, went to public issue last week with 150,000 shares. The objects of the company are, as its title suggests, to promote companies—but particularly in connection with oil and rubber.

◆

DEMONSTRATION OF THE "CARBOGEN" LIQUID FUEL BURNER.

On Thursday afternoon, an interesting demonstration of the "Carbogen" liquid fuel burner was given before a party of gentlemen at the Perseverence Glass Works, Hackney, London, N., by Messrs. Curle and Stackard, the patentees.

We have several times referred to this particular burner, and on more than one occasion dwelt upon its advantages—simplicity of construction, certainty of perfect operation, and comparative cheapness—so that it only remains for us to say that Thursday's demonstration of the burners was in every way very successful.

A large number of the burners were at work in the Perseverance glass works, where, for the working of glass, an immense heat, generated at necessarily great economy, is absolutely essential. They receive their supply of liquid fuel from pipes conveniently arranged overhead, and connected with the main supply tank outside the works, and the enormous advantages attending the use of such simple apparatus for utilising oil fuel, were apparent to all.

It is highly satisfactory to hear from Mr. Stackard that many of the "Carbogen" burners have been supplied for the great industrial centres, both at home and abroad.

The Petroleum Commerce of Austria-Hungary in 1909.

Nafta gives the following information relating to the exports and imports of petroleum products in Austria-Hungary during 1909, compared with those for 1908. The exports were as under (in tons):—

	1909.	1908.	Increase.
Illuminating oil	290,915	234,160	56,755
Benzine	32,528	25,596	6,932
Lubricating and solar oils	130,862	111,060	19,802
Paraffin scale, crude ..	3,395	3,386	9
,, refined ..	34,647	25,280	9,367
Crude oil	51,558	6,250	45,308
Total	543,905	405,732	138,173

The value of the imported products was as follows (in francs):—

	1909.	1908.	Increase or Decrease.
Illuminating oil ..	22,603,888	20,898,815	+ 1,705,073
Benzine	5,635,563	4,972,081	+ 661,482
Lubricating and solar oil.. ..	12,306,565	13,833,242	– 1,526,677
Paraffin scale, crude	1,497,371	1,777,700	– 280,329
,, ,, refined	19,645,189	16,988,160	+ 2,657,029
Crude oil.. ..	2,165,461	348,191	+ 1,817,270
Total ..	63,854,037	58,818,189	+ 5,035,848

As can be seen from the above tables of figures, the exports of petroleum products from Austria-Hungary increased from 405,732 tons in 1908 to 543,905 tons in 1909, or by 32 per cent., while the increase from 1907 to 1908 has been of 165,287 tons, or of about 70 per cent.

As regards the countries to which the exports were made, the largest part of all products was directed to Germany. The largest part of illuminating oil, of which there were exported 290,915 tons, against 234,160 tons in 1908, went to Germany, as shewn in the following table:—

	Tons.
Germany	156,870
France	33,850
Switzerland	23,148
Turkey..	15,782
Italy	5,158
Belgium	2,309
Bulgaria	1,087
England	904
Holland	691

Of the 32,528 tons of exported benzine (against 25,596 tons in 1908) Germany has taken 16,170 tons, France 7,138 tons, Switzerland 5,968 tons, Italy 1,230 tons.

Of the 130,862 tons of lubricating oil the largest portion also went to Germany.

The exports of crude oil during the year shew the largest increase, namely, that of 45,368 tons, or 725 per cent. This is due principally to the export of 48,000 tons into Roumania. Naturally, such exports to this country cannot be expected to continue.

An important article of Galician petroleum exports is the paraffin scale. The exports of it last year amounted to 3,391 tons of crude paraffin scale and 34,647 tons of refined paraffin, of a total value of 21,142,560 francs. This figure would have been 30 per cent. higher but for the cutting competition of the Americans. The following countries have participated in the distribution of Galician paraffin:—Germany, 14,108 tons; Italy, 6,620 tons; Russia, 2,218 tons; England, 1,087 tons; Turkey, 213 tons; China, 580 tons; Japan, 499 tons; Chili, 507 tons; Egypt, 113 tons; Mexico, 131 tons; and Africa, 196 tons.

As regards the imports of petroleum products into Austria-Hungary, their amount is quite insignificant, with the only exception of Russian lubricating oils, of which there were in 1909 imported 19,614 tons, of a value of 3,783,931 francs (against 16,267 tons, value 3,190,959 francs in 1908). The production of ozokerite in Austria-Hungary continues to decrease. It was in 1909 at 2,050 tons, against 2,560 tons in 1908, shewing a decrease of 510 tons, or of 25 per cent., while the decrease from 1907 to 1908 was only 3 per cent.

The exports of ozokerite in 1909 amounten to 2,310 tons, of a value of 3,517,736 francs, those of ceresin to 1,163 tons, value 183,227 francs, against 1,645 tons of ozokerite and 1,215 tons of cresine, of a total value of 4,418,120 francs in 1908.

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Refiners of Oklahoma and Texas Petroleum.
We make a Speciality of
SUPERIOR LUBRICATING OILS OF HIGH VISCOSITY AND LOW COLD TEST.
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The Petroleum Fields of the United States.

By Mr. W. G. BURROUGHS, Formerly Professor of Geology, Kendall College, Oklahoma.

(Concluded from page 290.)

"That these sand lenses and patches were laid down along the pre-Cherokee shore lines, is strongly suggested by the linear grouping of known pools into belts, the discordance of such belts with the strike of outcropping rocks and the parallelism of these belts with the pre-Cherokee shore lines. If this be the fact, the pools may, in general, be expected to develop greatest length in a north-south direction, thus explaining a characteristic of the known pools. Furthermore, the upper contour of the thickened lenses of sandstone determines the attitude of the succeeding deposits, developing therein a structure which may likewise influence the distribution of oil and gas. For instance, the rapid thickening towards the west of the sandstone lentil in the Labette shale in the vicinity of Coody's bluff, might locally counterbalance the normal westerly dip, producing a depositional feature in the overlying sediments akin to a structural terrace or arrested anticline. Sandstones overlying an oil-bearing sand of pronounced lens shape might also be oil bearing over the same area."

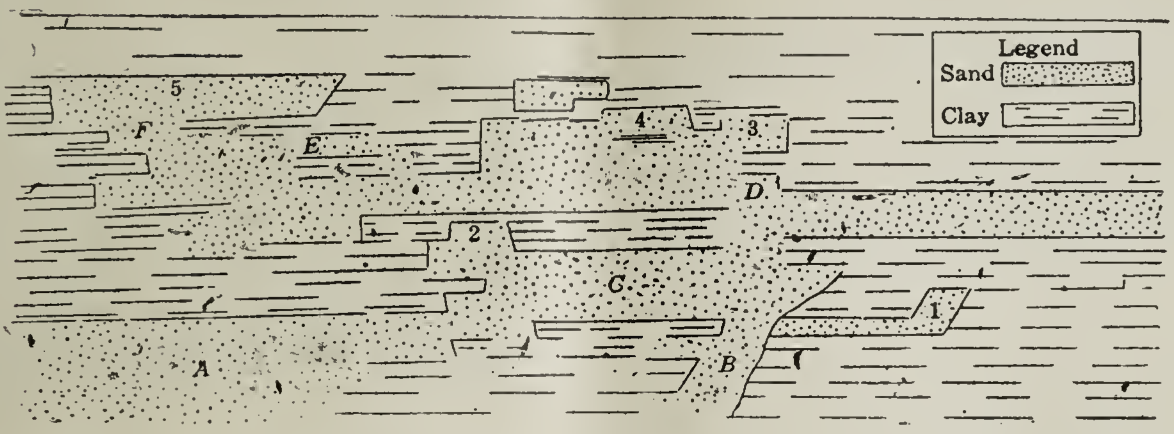

FIG. 4.—IRREGULAR SANDS AND CLAYS, TEXAS-LOUISIANA FIELD.

Up to November, 1908, not one-tenth of the probable oil field of the State of Oklahoma had been touched, and not one-tenth of what has been proved productive is yet developed. According to this estimate, not more than 1 per cent. of the State's oil and gas has been developed. Distillates from the Mid-Continental oil are:—Naphthas, 11 per cent.; illuminating oil, 41; lubricating oils, none; gas oil, 25; fuel oil, 20; paraffin wax, none. The gravity of Kansas oil is 37·3° to 28° B. The production of petroleum, including Northern Texas, in 1907, was 46,846,267 barrels. In 1907 Oklahoma produced 44,300,149 barrels, while Kansas produced 1,633,500 barrels. In 1908 the output of oil from Kansas and Oklahoma was 50,741,678 barrels; in 1909 the output of oil from these two States was 46,826,196 barrels.

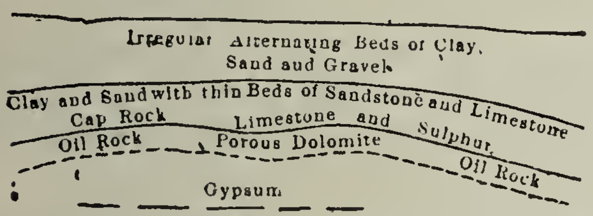
Irregular Alternating Beds of Clay, Sand and Gravel.
Clay and Sand with thin Beds of Sandstone and Limestone
Cap Rock
Limestone and Sulphur.
Oil Rock
Porous Dolomite
Oil Rock
Gypsum
Salt

FIG. 5.—SECTION OF SPINDLE TOP OIL POOL.

Geographically the Gulf field includes all petroleum producing areas in Texas and Louisiana. The rocks containing the oil are either sandstones or porous limestones, being overlain mainly by an impervious capping of clay. Fig. 4 shews an ideal section of this field. The oil is buoyed up by the ground water, and in its upward movement finds innumerable small pockets or traps in which it comes to rest. It thus may reach the surface, or be caught in these pockets of porous rock, and be retained in large enough quantities to be of commercial value. Oil occurs in limestone which is either porous or cavernous or both. Not all porous limestones contain oil, however. "Beneath the reservoirs in the sand are usually thick clays, and beneath the porous limestone are various impervious formations among which clay, marl and gypsum are common. In no case can it be shewn that the beds beneath the oil are less impervious than those above." In all probability the oil entered the reservoirs from the sides.

A striking topographic peculiarity of some of the oil fields are low mounds, of which Spindle Top (Fig. 5) is a good example. This mound is but 10 feet above the adjacent prairie and in area but little more than 200 acres. The oil occurs in a dolomitic limestone to which the far deeper wells of the surrounding prairie have found no formation to correspond. The two best hypotheses are that either "the rock may be horizontal outside the limits within which it is shewn, but have its character changed within a narrow space to that of the ordinary Coastal Plain deposits," or that it "may thin out and disappear, the entire formation having the form of a lens, concave below and convex above." The probability is that it is due to a combination of these two ways.

The age of the beds overlying the oil is uncertain. The horizon of the oil, however, is not older than late miocene, and the topmost beds are very recent. Rocks and minerals closely associated with the oil and the presence of which is peculiarly characteristic of the mounds which yield oil or shew close structural similarities to the oil fields are dolomite, sulphur, gypsum, salt and pyrite with associated salts.

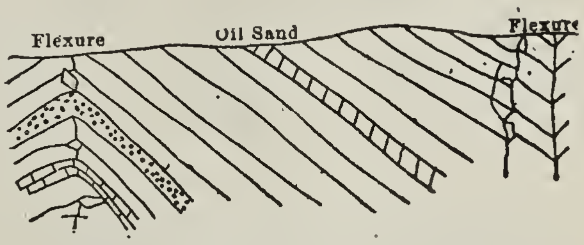

FIG. 6.—SECTION IN LOS ANGELES OIL FIELD.

"There is some reason for thinking that these mound structures are ranged along lines of slight crustal deformation of disturbance. If such lines exist, they probably trend north-east and south-west."

"Extending from Southern Arkansas, through Texas, and forming a belt in which lies the cities of Sherman, Dallas, Austin, and San Antonio, are the upper cretaceous rocks of the western Gulf coast. The higher formations are oil and gas bearing in a number of places, and at Corsicana, Texas, there is a productive oil field. The sands which contain the oil are found in a formation of blue-clay shales which serve to seal in the oil and gas."

The gravity of Corsicana oil which is refined is 38° to 39° B. The distillate products of the Gulf fields are: Naphthas, 3 per cent.; illuminating oil, 15; lubricating oils, 6; gas oil, 45; fuel oil, 28; paraffin wax, none. The gravity of Beaumont, Texas, oil is 24·8° to 31·1° B., and that of Sour Lake oil is 24·7° to 16° B.

The petroleum which occurs near the Gulf contains quite a percentage of sulphur, chiefly as hydrogen sulphide; but the sulphur is easily removed by steam before the oil is used. This petroleum is important as a fuel oil, and, being situated near the coast, it can readily be exported. The value of the gasolene obtained from this petroleum is considerable, for although the per cent. of gasolene derived is small, about 3 per cent., it is a better solvent than that from other fields.

The petroleum from Corsicana and other parts of the northern Texas field are lighter and contain less sulphur than that from the Gulf district. The distillate products of Corsicana oil are:—Naphthas, 7 per cent.; illuminating oil, 50; lubricating oil, none; gas oil, none; fuel oil, 40; paraffin wax, none.

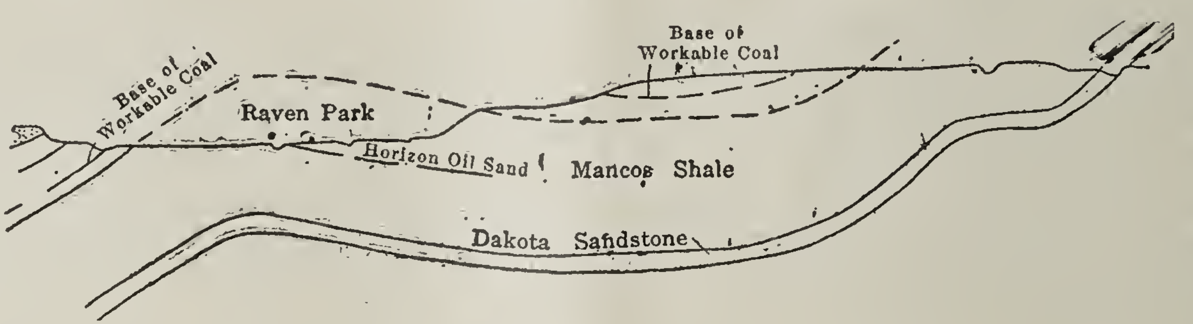

Fig. 7.—Section of Rangely Oil Field, Colorado.

The production of the Gulf field, including the oil fields of Louisiana and coastal Texas (northern Texas excepted), in 1907 was 16,410,299 barrels; production in 1908 for Texas, 11,206,464 barrels; for Louisiana, in 1908, 6,833,130 barrels; for Texas in 1909, 9,593,000 barrels; for Louisiana in 1909, 3,192,000 barrels.

In California there are a number of productive fields, all lying south of the latitude of San Francisco, although there are minor occurrences north of this latitude. The oil is found in sandstones, conglomerates and zones of fractured shale or flint offering interspaces in which the oil can gather. This structure is shewn in Fig. 6. There is also one noteworthy occurrence of oil in crystalline schist.

The petroleum occurs in connection with anticlines, monoclines, local lenses of sand or gravel, associated with faults and in synclines. The principal formations from which the oil is obtained are the Monterey (upper miocene), Fernando (upper miocene or lower pliocene), Tejon (eocene), Vaqueros (lower miocene), Santa Margarita (upper middle miocene), and the Jacalitos (upper miocene).

In the Santa Maria district the oil is always intimately associated with gas. This oil exhibits a striking tendency to migrate upward, in spite of the fact that whatever water is present occurs, in all but four wells, near the surface, or at least considerably above the oil-producing zones. This tendency of the oil to migrate is accounted for by the associated gas.

An example of the oil occurring in monoclines is found in the Westside and Kreyenhagen fields, in which water is associated with the oil. Here the oil is prevented from escaping to the surface, not by an overlying impervious formation, but by the heavy residual hydrocarbons which were left when at the first period of formation of the oil it rose to the surface, the lighter compounds in the petroleum being evaporated and escaping into the air. These hydrocarbons thus seal the outcropping porous oil strata.

In Placerita canon, five miles east of Newhall, is an area of oil land of insignificant size and yet one of the most remarkable oil territories in the world. The oil occurs in crystalline schist. Under this schist is the San Gabriel granite, and overlying the schist, at a short distance from the oil wells, are rocks which are thought to be of the Fernando formation. "The schist in which the oil occurs is micaceous and granitic, conspicuously banded and greatly contorted. The presence of oil under conditions similar to those that exist here is perhaps unknown in any other part of the world. The oil itself is almost a naphtha, white in colour, and having a gravity of 50° to 60° B. It may be that the oil is of later origin than the rocks from which it is derived, or, in any event, that it was for a time stored in another reservoir, perhaps of Vaqueros, possibly even of Fernando age. It is possible that from such a reservoir the light oil, already from some cause separated from the heavy oil, may have found its way between the two formations and penetrated the crystalline rocks through one of their fractured zones."

The distillation products of California crude petroleum are:—Naphthas, 6 per cent.; illuminating oil, 18; lubricating oils, 1½; gas oil and fuel oil (including acid oil, asphaltum oil and asphalt), 72; paraffin wax, none. The gravity of California oil is 35° to 12·3° B.; that of oil from the crystalline schist is 50° to 60° B.

In 1906 the amount of oil used as fuel in California was greater than the entire production of the State for the year; the production in 1906 being 33,098,598 barrels. The production in 1907 was 39,748,375 barrels; in 1908, 45,000,000 barrels; in 1909, 58,250,300 barrels.

In Colorado the principal occurrences of oil are in sand lenses in an anticlinal fold of the Mancos shale (cretaceous), as shewn in Fig. 7; in the more arenaceous beds within the Pierre formation (cretaceous) upon a structural slope; and along a monoclinal fold of the Fort Pierre shales (cretaceous), sometimes in the sandier beds and sometimes in the shale itself.

The distillation products of the crude petroleum of Colorado are:—Naphthas, 3½ per cent.; illuminating oil, 35; lubricating oils, 3; gas oil, none; fuel oil, 55; paraffin wax, none. The gravity of Rangely oil is 44° B. The production in 1907 and 1908 was 400,000 barrels in each year; in 1909, 500,0000 barrels.

The petroleum fields of Alaska are Controller Bay, Cape Yaktag, Cook Inlet, and Cold Bay, all these fields being on the southern coast of Alaska and situated on tidewater. In the Cape Yagtag field, in which the geological occurrence of the oil has been determined, it is found associated with rocks consisting of shales with interbedded sandstone and limestone, the structure being anticlinal. In the Controller Bay field the structure is extremely complex and difficult to interpret.

"West of Katalla, the seepages of oil are associated with metamorphic rocks, the oil coming to the surface either through the joints and bedding or cleavage planes of the slate and greywacke, or through superficial deposits which probably overlie such rocks." The explanation for this is probably that the metamorphic rocks, which are known to be separated from the tertiary shales by a fault, are overthrust upon the shale along a fault plane of low hade, and that the oil at the seepages is coming through the metamorphic rocks from the underlying shales. The petroleum of the region is a refining oil of high grade.

Other fields in which small quantities of oil have been produced are Wyoming, Missouri, Michigan and South-western Utah. Of all these smaller fields, including Colorado and Alaska, Wyoming gives most promise for the future. In 1908 it is estimated that Wyoming produced 13,000 barrels; in 1909, 15,000 barrels.

Oil also occurs in Montana, Washington, Oregon, Idaho and Nevada.

Oil-bearing rocks range in age from Ordovician to the most recent. In the eastern States these rocks are chiefly paleozoic in age; in the western and southern States, of post-carboniferous age. The oil occurs in sandstones, dolomitic limestones, sandy shales, shales, conglomerates, gravel, flint, slate, greywacke, and crystalline schist. The structure of the rocks from which the petroleum is derived are anticlines, synclines, structural terraces and benches, arrested anticlines, lenses, monoclines and in rocks associated with planes of faulting.

ENGLISH PATENTS.

(Specially contributed by Messrs. EDWARD EVANS & Co., Consulting Engineers, Chartered Patent Agents, and Enrolled Patent Attorneys, of the United States, of 27, Chancery Lane, London, W.C.

Applications Filed in Great Britain.

Improvements in Burners for Petrol Vapour Radiators.—Frank Allen Hood and British and Colonial Lighting Co., Ltd, 38, Chancery Lane, London. No. 10756 of 1910.

Improvements in Valves for Use in Connection with Hydrocarbon Vapour Lamps and the Like.—Frank Allen Hood and British and Colonial Lighting Co., Ltd., 38, Chancery Lane, London. No. 10657 of 1910.

Improved Apparatus for Vapourising and Gasifying the Heavy Volatile Oils or Essences in Internal Combustion Engines.—Augustin Lefort, 72, Cannon Street, London. No. 10805 of 1910.

Improvements in and relating to Receptacles for Petrol or the Like.—Anglo-American Oil Co., Ltd., and Francis Edward Powell, 19, Holborn Viaduct, London. No. 10819 of 1910.

Improvements in the Manufacture and Production of Oils from Coal Tars and the Like, and also a Pitch Free, or Relatively Free from Uncombined Carbon.—John Lewis Major, 47, Lincoln's Inn Fields, London. No. 10931 of 1910.

Applications Published in Great Britain.

Vapour Lamps or Burners.—Herbert John Haddan, Firm of Herbert Haddan and Co., 31 and 32, Bedford Street, London, W.C. (Herschel Merle Connen, 316, West Jackson Boulevard, Chicago, Illinois, and Willis Arthur Burney, 203, East Gaston Street, Savannah, Georgia, United States of America.) No. 19870 of 1909.

This relates to a vapour burner and consists in the combination with a casing or vapour reservoir of a removable perforated cylinder forming a heating chamber, a vapour generator passing through the latter, an air-mixing chamber into which the generator discharges, means for supplying oil under pressure to the generator, a vapour conduit or conduits connecting the air-mixing chamber with the casing, and one or more hollow arms having burner tips communicating with the casing.

Improvements in and relating to Venting Devices for Petrol Containers and the Like.—George Wright Cox, Waterloo House, Uppingham Road. Leicester, in the County of Leicester. No. 7725 of 1909.

This relates to means for permitting and controlling the access of air into petrol containers and like vessels, consisting of a tube opening into the interior of the container, and having a perforation or perforations in its side and a cap or stopper adapted to fit upon or in the tube, and so cover or uncover the partition or partitions therein. The tube does not project inwardly with respect to the outer surface of the container.

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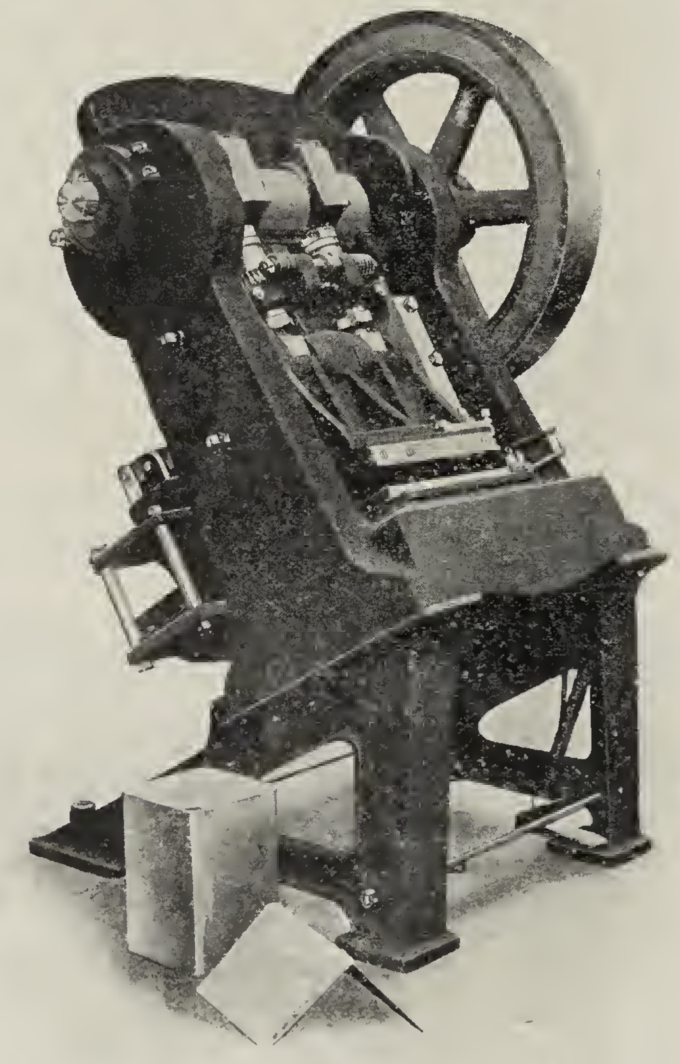

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AMONG THE SCOTTISH SHALE COMPANIES.

COMBINATION SUGGESTED IN THE OIL TRADE.

The Pumpherston Oil Company, Ltd.

Mr. John Paterson, the chairman of the Pumpherston Oil Co., Ltd., presided at the twenty-seventh annual general meeting held yesterday week in the Religious Institution Rooms, Glasgow.

In moving the adoption of the report and balance sheet, he said that he regretted that the result of last year's operations had been much less satisfactory than those of recent years. That was more than accounted for by the serious drop which had taken place in the prices of all the products manufactured by the company. Such a severe fall in prices had rarely, if ever, taken place in the oil trade in any single year. In the case of the Pumpherston Co. the loss amounted to over £80,000, which was a very serious encroachment on the earnings. It was gratifying, however, to find that while the drop in prices exceeded £80,000, the decrease in the profits was only £35,124, shewing that about £45,000 had been made up from extended business and improvements in working. It was not proposed to add anything to the reserve fund from the results of last year. The reserve fund amounted to £100,000, and there was a sum of £10,000 standing at the credit of the fire insurance fund. These two sums together were practically equal to the ordinary paid-up capital of the company. Having regard to this, and to the otherwise strong position of the company financially, the directors had not considered it necessary, in present circumstances, to recommend any addition being made to the reserves.

He was sorry he could not say there was much evidence of improvement in market conditions for the current year. Liquid products, however, shewed some slight indications of improvement. On the other hand, wax, which was one of the most important products, was rather lower in price than the average of last year. The rapid increase in the supply of oil all over the world appeared to have affected the markets for the time being, and until production and consumption again adjusted themselves much improvement could scarcely be looked for. As regarded the immediate future, the prices had shrunk so rapidly that it had not been possible for the company to accommodate itself entirely to the altered conditions, but it was hoped that, as in the past, they would be able to recover within a reasonable time the amount lost by shrinkage of prices. With regard to their shale resources, for some time they had been engaged in extensive boring operations in the western part of their shale field in the vicinity of Deans and Seafield. These operations had resulted in the proving of a large area of the Pumpherston shales of very fine quality. Two mines had been commenced to win these shales, and they hoped to reach them in twelve months from now. When they were in a position to work them they would prove a source of added strength to the company.

Mr. William Fraser seconded, and questions were invited.

Mr. George S. Comrie said that at two other oil company meetings the question of a central agency had been referred to. It would be interesting to the shareholders of the Pumpherston Co. to hear any opinion the directors might have to express

Mr. William Fraser, managing director, replied at the request of the Chairman. He was afraid, he said, that he could not say much in answer to the question which had been put to the board. The question of a selling agency had been referred to and discussed informally, but as to whether anything of a practical kind was to come from it, it was impossible for the board to say. There was also in the air, in the same connection, the question of amalgamation, or the combination of all the interests in the oil trade into one unit. Speaking purely for himself, and without committing anybody, his sympathies lay very much more in that direction than in the direction of a selling agency. He knew of many great advantages that would accrue to the Scottish oil trade if it were unified. He need not begin to enumerate them, but he was sensible, from a long experience, that very great advantages would come from a combination of all the interests of the oil trade into one. He was aware, at the same time, that there were very great difficulties to be overcome in bringing about such a result. The main difficulty, in his opinion, would be to bring all those who were interested in this matter into the correct frame of mind to agree to what would be for the common good. He was satisfied that if the officials and boards of the various companies were unanimous and in earnest in the matter all difficulties would disappear, and the combination, which would mean, he thought, so much for the interests of everybody, might reasonably be expected to follow. The matter was in the air. Whether anything would come of it he was unable to say, but he thought he might say for the Pumpherston board that they would carefully consider any well-advised scheme that might be matured with the object in view that he had stated.

The report was then adopted.

The retiring directors, Mr. John Paterson and Mr. Archibald Fraser, were re-elected, and the directors were voted a sum of 1,600 guineas for their services during the year.

The Tarbrax Oil Company, Ltd.

The sixth annual general meeting was held on Friday week in the Religious Institution Rooms, Glasgow.

Mr. William Fraser, chairman of the board, presided, and in moving the adoption of the report said he regretted to have to submit a report so much less satisfactory than that of last year. As they probably knew, there had been a serious fall in the price of all crude oil products during the past year. The full weight of the drop had been felt by the Tarbrax Co., and the decrease in the profits was due to the serious reduction in the price got for the crude oil. As they were aware, the crude oil was sold to the Pumpherston Oil Co. on a sliding scale, and the price obtained by the Tarbrax Co. for the whole year was the minimum price payable under the agreement with the Pumpherston Co. There was perhaps some satisfaction in knowing that they had thus seen the worst of it so far as the price of crude oil was concerned. Every possible effort would be made at the works to diminish the cost of production and to maintain the yields, and it was hoped in this way to some extent at least to recover lost ground. The works had been fully employed during the year, and had been maintained in a thorough state of efficiency. The additional bench of retorts referred to in last report was completed and put to work in September, and there was now a large production of crude oil. The company was therefore in an excellent position to benefit by any improvement in trade.

Mr. John Paterson having seconded, the report was unanimously adopted.

The retiring directors, Messrs. Archibald Fraser and William Bryson, were re-elected. The directors were awarded 350 guineas for their services during the year.

—*—

Young's Paraffin Light and Mineral Oil Company, Ltd.

The report of the directors of Young's Paraffin Light and Mineral Oil Co., Ltd., for the year ended 30th April 1910, which is to be submitted to the forty-sixth general meeting of the company, to be held next Wednesday, states that after providing for maintenance of works and mines, and paying all current charges, the amount at credit of profit and loss account, including the balance of £14,637 12s. 6d. brought forward from the previous year is £74,766 17s. 10d. The directors recommend that this amount be apportioned as follows:—To general depreciation, £20,000; to exceptional outlay at works, £5,965 13s.; to interest on debenture bonds, £16,732; to dividend of 4½ per cent. on the ordinary shares, £20,376 7s. 2d.; to contingent dividend of 3 per cent. on the B debenture bonds, £4,500; to balance carried forward, £7,192 17s. 8d.—£74,766 17s. 10d. The ordinary dividend will be paid in equal portions on June 15th and December 15th; and the contingent dividend on the B debentures will be wholly paid on August 1st, in terms of the conditions of the bonds—less income tax in both cases.

The reduced profit is chiefly due to the whole of the products manufactured by the company having realised lower prices than in the previous year. the fall having been especially severe in solid paraffin and candles. The unfavourable features have been aggravated by a fire which took place at Addiewell, whereby the crude paraffin departments were totally destroyed, thus seriously curtailing the company's operations betwixt the months of July and November. Until last year there never had been a serious conflagration at the company's works; still, even with the most elaborate precautions, there is risk involved owing to the nature of the operations. The board, therefore, have thought it prudent to arrange for insurance of profits against fire loss, based on the results of the past five years, and this has been effected on reasonable terms As the refineries, owing to the fire, were unable to deal with the company's standard production of crude oil, opportunity was taken to dismantle a bench of manual gravitation retorts at Uphall, which, after working for ten years, had become ready for renewal, and to erect a new bench fully equipped with mechanical apparatus. This bench has been in operation since January, and is giving complete satisfaction. Another bench of the same improved description is now being erected at Addiewell, and will supersede a bench there which has also been working for ten years.

In addition to the ordinary maintenance there has been expended during the year the sum of £5,965 13s. for exceptional outlay at works It comprises Galloway and Babcock and Wilcox boilers with mechanical stokers; also washhouses and vitriol plant. The amount is recommended to be written off. The capital outlay has amounted to £14,686 8s. 1d., and consists of Baads coal mine, railway and picking plant, £2,776 17s. 7d.; Muirhall Pumping Pit, £640 16s 8d.; rolling stock for company's coal, £2,817 8s. 1d.; Polbeth Shale Mine, £3,847 9s. 7d.; Alderstone Shale Mine and Railway, £4,157 6s. 11d.; and sundries, £446 9s. 3d. Owing to advancing years Mr. Thomas Watson found it necessary to resign his seat at the board, much to the regret of his colleagues. The directors retiring at this time are Sir Matthew Arthur and Mr. Hugh Brown. They are eligible for re-election, and are willing to act if again elected.

ROUMANIA'S ILLUMINATING OIL TRADE.

THE NEW ORDER FOR DISTRIBUTION.

The new order for the distribution of the inner consumption of illuminating oil in Roumania for the period of April 1st, 1910, to March 31st, 1911, has been fixed by the Minister of Finances to a total of 40,071 tons, as against 38,288 tons for the preceding year. The following are the quantities allowed to the leading refineries:—

	Tons.
Steaua Romana	7,167·7
Vega	3,398·4
Aurora-Baicoi	3,250·6
Romano-American	3,050·7
Colombia	1,691·5
Aquila Franco-Romana	1,674·2
Trajan	1,583·9
Astra	1,583·9
Standard	1,213·9
Baneara	1,100·9

The smallest quantities have been alloted to the following refineries:—

	Tons.
Nicolescu	55·8
Dumitrescu	54·2
Ghinta	36·1
Constantinescu	29·2
Ciocardel	16·5

* * *

PETROLEUM PRODUCTION IN GALICIA DURING 1909.

Dr. St. Bartoszewicz, the general secretary of the Galician Petroleum Association, has published the statistics of petroleum production in Galicia during 1909 in comparison with those for 1908.

The total production in 1909 amounted to 2,076,740 tons, as against 1,754,022 tons in 1908, shewing an increase of 322,718 tons, or of 20 per cent. The increase in the production of 1908 against 1907 was of 50 per cent.

The following table shews the production in the several districts:—

	1909.	1908.	Increase or Decrease.
Tustanowice	1,706,435	1,318,710	+ 352,000
Boryslaw	231,195	266,910	
Shodnica	37,860	36,480	+ 1,380
Other Fields in the East	25,110	30,022	− 4,912
Fields in the West	76,140	101,900	+ 25,760

* * *

ROUMANIAN PRODUCTION DURING APRIL.

The production of petroleum in Roumania during April amounted to 107,425 tons, as against 109,550 tons produced in March. The following shews the production of the leading firms (in tons):—

	April.	March.
Steaua Romana	28,968	33,837
Regatul Roman	19,933	24,088
Romano-American	14,455	5,277
Astra	9,441	9,335
Concordia	7,561	8,439
Orion	6,386	5,181
Campeanu	4,000	5,300
Trajan	2,179	2,362
International	2,806	2,341
Colombia	2,133	2,212
Aquila Franco-Romana	1,298	1,356
Alpha	1,236	1,411
Nafta	1,416	1,409

THE INDIAN PETROLEUM MARKET.

(Crowded out of page 341.)

Bombay, May 14th.

The petroleum market is firm. The following are the current prices of the Standard Oil Co. of New York:

		Rs.	a.	p.
Snowflake Brand, 150 deg., American	(per case)	6	8	2
White Rose, 150 deg.	,,	6	8	2
Chester Brand, 76 deg. Abel	,,	5	0	2
Devoe's Brilliant	,,	4	12	2
Monkey Brand, 76 deg. Abel	,,	4	8	2
Elephant Brand, 125 deg. (bulk in tins)	(per 2 tins)	4	3	0
Elephant Brand, 125 deg. (bulk without tins) (per 8 Imperial gallons)		3	9	0

The following are the current prices of the Asiatic Petroleum Co., Ltd.:—

		Rs.	a.	p.
Swan Brand, bulk loose	(per unit)	2	14	0
Swan Brand, new tins	(per pair)	3	9	0
Ship Brand, bulk loose	(per unit)	3	9	0
Ship Brand, new tins	(per pair)	4	3	0
Rising Sun Brand, bulk loose	,,	3	10	0
Rising Sun Brand, new tins	,,	4	4	0
Anchor Cases	(per case)	4	3	0
Silver Light 150 deg. cases,	(per case)	5	0	0

The prices of the Burma Oil Co.'s productions are as under:—

		Rs.	a.	p.
Kerosene, Victoria	(per 2 tins)	3	8	0
Kerosene, Victoria	(per 8 gallons)	2	14	0
Kerosene, Chukker	(per 2 tins)	4	0	0
Kerosene, Chukker	(per 8 gallons)	3	6	0
Burmah Wax	per pound)	0	4	0
Burmah Candles	,,	0	4	6

* * *

AMERICAN EXPORTS OF PARAFFIN WAX.

The exports of paraffin wax from America during March, in comparison with the exports during the corresponding month of 1909, were as under (in pounds):—

Exported to—	1910.	1909.
United Kingdom	6,556,137	6,540,725
Belgium	423,424	38,564
France	113,508	45,003
Germany	212,369	160,623
Italy	1,054,118	657,453
Netherlands	338,165	230,919
Other European Countries	798,735	183,827
Central American States and British Honduras	102,850	154,812
Mexico	827,512	1,917,591
South America	31,238	30,241
Japan	2,522,781	608,472
British Australasia	512,328	—
Other Asia and Oceanica	795,272	11,702
British Africa	673,976	59,184
All Other African Countries	225,500	—
Other Countries	22,561	1,506

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THE OIL SHALE DEPOSITS OF CANADA.

— *By* —

Dr. R. W. ELLS,
LL.D., F.R.S.C.

DISTRIBUTION OF ALBERT SHALES.

The general distribution of the Albert shale series in Albert and Westmoreland counties, Canada, was shewn on the map accompanying the report of the Geological Survey for 1876-7, and though some minor discoveries have been made at several points, on the whole the delimitation of these rocks, as there shewn, still holds good. No attempt was made on the map to indicate the several bands of oil shale, owing to the smallness of the scale on which it was compiled. These were further examined during September, 1908, and were measured at the outcrops in the several areas. Of these it may be said that workable beds are now known to exist in at least six localities, with further possibilities along the western extension of the Albert shales.

Beginning at Taylorville on the Memramcook river, opposite Upper Dorchester station on the Intercolonial railway, four beds of very excellent character are uncovered. Of these, two beds were each 22 inches in thickness, one of 3 feet, and one of 5 feet. These are largely of the curly variety. At the Memramcook outcrops near St. Joseph's College the oil-shales were not observed at the surface, but were apparently passed through in the borings. The former place is situated directly on tide water, and within a mile of the railway station, and is, therefore, very easy of access. From this place several thousand tons were shipped in 1864 to the United States, apparently for use in gas works or for distillation at Boston.

No thick bands of oil shales were uncovered either at Beliveau or at Dover on the Petitcodiac river side, but there is a strong probability that such exist in these areas, since the beds are evidently continuous across the district, the intervening distance being occupied by overlapping deposits of millstone grit age.

In Albert county, the area between the Petitcodiac river at Hillsborough and Albert mines is also covered with millstone grit, and by the true lower carboniferous formations, comprising marine limestone and gypsum, with conglomerates and shale, beneath which the Albert shale series emerges near the mines at the Salisbury and Harvey railway. These underlying shales are thence well exposed, especially along the stream known as Frederick brook, where they were first discovered in 1849. Along this brook six well-defined beds of oil shale, in massive bands, were opened up. These are partly of the curly variety, and partly of the plain, the thickness ranging at the surface from 3 feet 6 inches to 7 feet, all of which may be classed as of very excellent quality, with a total exposed thickness of about 30 feet. While other beds have been passed through in sinking the several shafts by which the albertite vein was worked, the exact position of these cannot now be ascertained without boring, though pieces of this material can be seen in several dumps, and much of it belongs to the curly variety, and should be exceptionally rich in hydrocarbons.

The deposits of albertite which occur in veins in this area have already been referred to, and while the use of this material as an enricher of bituminous coal in the manufacture of gas has largely ceased, its high percentage of oils by distillation still makes it an important factor in the future development of these shales.

The shale deposits of this area terminate against the flanks of the Caledonia mountain range, where they apparently become overlaid along its north side by the conglomerate and marly beds, with sandstone, to within a short distance of the village of Baltimore. At this place the shales again emerge from the unconformably overlapping cover, about half-a-mile east of Forsyth brook, which is a branch of Turtle creek, and on this brook the Albert shales are well exposed, resting against the flank of the crystalline rocks. On Baizley brook, one-quarter of a mile to the west, these shales contain several beds of very rich oil shale, partly of the curly variety, the percentage of oils and ammonia being very high. They have been opened to some extent, and it was from one of these beds that much of the material used in the old distillation works at this place, in 1862-4, was taken.

Farther west, near the corner of Rosedale post-office, other beds are seen, and on the crest of the hill, near the house of Edward Steeves, others of very fine quality are exposed, and have also been opened by drifts to a point nearly 100 feet from the line of outcrop, with a north dip of from 15 degrees to 20 degrees. Near this point is the bed now known as the Irving seam, from which the shale shipment sent to Scotland for the test on a commercial scale during the winter of 1908 was taken, the details of which have already been given.

These beds appear to strike west to the west branch of Turtle creek, in which direction they become greyer in colour. In all it is known that at least six well-defined beds of rich oil shale occur in the Baltimore area, and probably there are others not yet definitely located. The thickness of the seams at this place range from 4 feet to 7 feet, as given on page 140 Geological Survey Summary Report, 1908.

On the west branches of Turtle creek several other outcrops of oil shale were observed. One of these, on the branch nearest Baltimore, has a thickness of about 15 feet, but other thinner bands are seen along the stream : while on a small branch of the west branch another seam of very rich shale of the grey variety has been partially opened up, and as nearly as could be measured had a thickness of 3 feet 6 inches.

In the Baltimore area the Albert shale rests directly upon the north flank of the crystalline rocks, with a well-defined north dip at moderate angles, and no underlying conglomerates are visible in this area. The measures, though somewhat faulted, are not so greatly disturbed as in the areas of the east. The exposed breadth of these shales is not large, as they soon become covered to the north by the reddish beds and limestones of the lower carboniferous formation which in turn are capped by millstone grit.

Going further west good outcrops of the shales are seen on Hayward brook, which is a branch of Prosser brook, and on the upper part of this stream three good beds with thickness of 4 to 5 feet, of a rich chocolate-brown oil shale, are exposed near the contact with the pre-Cambrian rocks of the mountains. These beds are different in character from the oil shale bands of Baltimore and Albert mines, cutting readily with the knife, but are rich in both oils and ammonia. They also have a well defined northerly dip, but as the width of the outcrops is small and terminates a short distance west against a spur of the crystalline rocks, in the absence of development work; save at one point, little can be said as to the general structure.

The projecting spur of the pre-Cambrian rocks, which extends eastwards across Prosser brook for a mile or more, apparently terminates the shale belt just described, but on the north side of the spur, and near the road crossing the Coverdale river in the east part of Pleasant vale, the brown bituminous shale again appears on the side of a ridge in a small anticline, overlaid directly by lower carboniferous limestone and conglomerate. Thence westward they are exposed at intervals to beyond Mapleton, where they have a considerable development, and contain several beds of oil shale to within a short distance of the crossing of Pollet river, north of Elgin corner; the shales in this portion keep to the south along the flank of the mountain range, and are associated with green conglomerates. The flat land along the river north of Elgin is occupied by drift deposits, probably resting on lower carboniferous sediments, which in turn lie unconformly upon the shale series. West of Elgin the Albert shales are seen in a few places along Robertson brook, but here the rocks of this series are much less bituminous. Rich shale again appears on Montgomery brook, near the cross road from Goshen corner south, beyond which they are entirely concealed by overlying formations, and do not again appear at the surface until the branches of Trout creek south of Sussex in Kings county are reached. From this creek west the brown shales are again exposed regularly on a back road leading to Campbell settlement south of Norton, and are well seen at Ratters corner in this direction. They also outcrop on Moosehorn brook, and on a road south of Bloomfield, but their bituminous character is much less pronounced, black, grey, and dark shales accompanying the brown beds. Farther west they appear in a railway cutting half a mile south-west of Apohaqui station, beyond which they are covered by drift deposits along the valley of Kennebecasis river, and shew in a small outcrop to the north of this stream at a point two miles north-east of Hampton village, with some carbonaceous matter, which has been supposed to represent a coal deposit. This, however, has no apparent economic value, and the material taken from a shaft sunk at this place shews but slight trace of bituminous matter. Westward of this, on Kennebecasis island, while the shales of the formation are seen, is already remarked, the bituminous character is absent.

The Shales of Nova Scotia.

The oil shales of Nova Scotia have been known for half-a-century, and shortly after their discovery in Pictou county in 1859, were opened and mined to some extent under the name of stellarite, the output being used in the distillation of oil, and for admixture with bituminous coals in gas making. The literature on the subject has recently been reviewed, and has been supplemented by recent examination in the field of the several areas. The areas are quite numerous, being found at a number of places in that part of Nova Scotia, east of the Avon river, and exposed at intervals, to the eastern part of Cape Breton. The shales apparently belong to several formations, in part belonging to the upper Devonian, and in part to the coal measures, and some are apparently associated with upper carboniferous rocks, the latter two being in the county of Pictou.

(To be concluded.)

◆

Artificial Asphalt.—During the last nine months Shiffrin's factory at Baku has manufactured 234,294 poods of artificial asphalt out of acid waste. Shiffrin's works are now contracting for all the disposable acid waste from oil refineries in the district.

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The American Oil Market.

New York, Week ended May 21st.

Operations in the Eastern petroleum fields during the week have been attended with better results than were noted in the previous review, a gain in completions and a more than proportionate increase in new production marking the current week. In the high grade fields of the Pennsylvania classification, South-eastern Ohio was well in the lead in completed work and new production. The developments in the Bremen pool of Fairfield county and in the Junction City pool of Perry county furnish the most prolific returns in the section. Especially gratifying were the results accomplished in Fairfield county during the last few days. In the week's summary are included twelve wells drilled, all in the producing column to the extent of 1,255 barrels as the daily average. One of the recent completions responded to agitation by flowing at the rate of 300 barrels a day. The new production column of West Virginia was much more creditably represented in the week's returns than previously, chiefly as the result of operations in Harrison county. Another completion of a capacity suggestive of the early wells of the gusher type was credited to the Shinnston pool, the first fourteen hours' output being placed at 250 barrels from the fifty-foot formation. All of the recent completions in excess of the average productiveness were drilled within defined territory says the *Oil, Paint and Drug Reporter*, and efforts to extend the limits of the pool have been practically abandoned as hopeless. Much interest is centred in development work in Roane county, and one of the week's completions was regarded as promising from an extension of the producing limits of the Smithfield district. The well of exceptional capacity in the Murphy district of Ritchie county which, as previously noted, yielded 400 barrels the second twenty-four hours, has continued to decline, a late report giving its output as 115 barrels a day. A gain in completed work and new production has marked the week's operations in the Lima fields of North-western Ohio and Indiana. Prospects are now considered favourable for extending the limits of Wood county in the Ohio end, oil having been found in what had been regarded as a salt water belt about five miles south of Bowling green. There was also encouragement for broadening the producing area of the Trenton limestone field of Indiana, several successful wells having been drilled in the extreme Eastern section of Randolph county, near the Indiana-Ohio State line. The Oakland City field continues the most prolific centre in Indiana, three of the four completions of the week being credited with a daily total of 315 barrels. A slight decrease in completed work is recorded in Illinois, but a material decline is noted in new production. Lawrence country, although second to Crawford in the number of wells brought in, maintains a considerable lead in production. Illinois operators are still keen in testing territory far in advance of producing wells, but as yet there is little to encourage the wildcat developments. The remarkable producer of the Caddo field of Louisiana which, as previously noted, placed 7,000 barrels of oil to its credit the second twenty-four hours after the pay sand had been reached, has given greater demonstration of its resources, advices during the week reporting that it had been maintaining a capacity of 10,000 barrels a day.

Refined and Products.—The local market for refined has followed an uneventful course during the week, the general conditions remaining practically as previously noted. The export movements involved fairly good proportions, 16,187,290 gallons, against 18,940,130 gallons as the former aggregate. Of the quantity shipped during the current week, 12,095,000 gallons were carried in bulk Government statistics just at hand record a decreased outlet for refined from the local port during April, as compared with March returns as well as with those for April, 1909, comparative figures being 42,476,486 gallons for April, 1910, 59,689,828 gallons for March, 1910, and 53,508,654 gallons for April, 1909.

CLOSING QUOTATIONS.

Crude at the Wells.

The quotations for oil represented by credit balances were :—

	Week ended	
	May 21. 1909.	May 21. 1910.
Pennsylvania	$1·68	$1·35
North Lima	0·94	0·84
South Lima	0·89	0·79
Indiana	0·89	0·79
Illinois, heavy, below 30 deg. ..	0·60	0·52
Kansas and Indian Ter., 30 deg. and above	0·41	0·38
Heavy	0·28	0·30
Humble, Tex.	0·54	0·75
Saratoga	0·53	0·75
Sour Lake, Tex.	0·53	0·77
Jennings, La.	0·54	0·54
Canadian Oil :—		
Petrolia	1·39	1·24
Oil Springs, less pipeage	1·46	1·31

Refined—For Export.

In cents.	Week ended May 21. S.W. 110 test.	W.W. 150 test.
Barrels, cargo .. .. per gal.	7·75	@ 9·25
Philadelphia	7·75	@ 9·25
Bulk, New York	4·25	@ 5·75
Bulk, Philadelphia	4·25	@ 5·75
Cases, New York	10·15	@10·65
Cases Philadelphia	10 15	@10·65

Refined in Cases—110 Fire Test.

	Week ended	
	May 14. 1910.	May 21. 1910.
3,000 to 10,000	10·30	10·30
1,000 to 3,000	10·35	10·35

Refined—Jobbing Lots.

In barrels, pkgs. included.

	Week ended	
	May 14.	May 21.
130 fire test, S.W.	11¼	11¼
150 fire test, W.W.	11¾	11¾
In bulk from tanks	8½	8½

Naphtha and Gasolene.

	Week ended	
	May 14.	May 21.
Naphtha, V. M. and P. deod. ..	12	11
Gasolene, 86 deg.	22¾	23¾

Pennsylvanian Oil Runs from May 12th to May 18th, were :—May 12th, 180,023* ; May 13th and 14th, 232,290* ; May 15th, 195,685* ; May 16th, 86,221* ; May 17th, 225,893* ; May 18th, 185,879*.

The Deliveries of Pennsylvanian Oil from May 13th to May 19th were:—May 13th, 231,659 ; May 14th and 15th, 372,070* ; May 16th, 249,560 ; May 17th, 156,148 ; May 18th, 253,373* ; May 19th, 224,483.*

* Includes Illinois Oil.

Export Statistics.

The total exports from the port of New York and from the United States have been :—

	Week.	Year.	Gallons. 1909.
Refined	16,187,290	217,203,315	219,514,920
Crude	3,750	6,901,405	16,502,095
Naphtha	499,310	24,207,705	16,689,965
Residuum ..	..	6,322,150	203,220

Clearances for the Week.

During the week ended May 20th and since Jan. 1, the clearances of petroleum, in gallons, from the port of New York, were as follows :—

From New York, week ended May 20th ..	21,586,803
Total from New York, from Jan. 1st, 1910 ..	296,606,575
Same period last year..	309,189,655
Decrease	12,583,080
From United States, week ended May 20th	35,353,430
Total from United States, since Jan. 1st, 1910	453,091,138
Same period last year..	514,347,001
Decrease..	61,255,863

WORTHINGTON & BOLER,
LIVERPOOL, LONDON & GLASGOW.
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The "Review" Shipping List.

JUNE 3, 1910.

(*The following abbreviations are used in this table*:—L. Left; P. Passed; Arr. Arrived; Sp. Spoken; Tr. Trading.)
Anglo-American Co.'s vessels marked thus (□): the Anglo-Saxon Co.'s tankers thus (*): and Messrs. Lane and Macandrew's thus (†).

Vessel.	From.	For.	Latest Date and Position.
ALCHYMIST	Southampton	Smyrna	At Malta, May 28/29
ALICE ET ISABELLE (Fr. bq.)	Havre	Tonsberg	L. May 28
AMERICAN	Antwerp	New York	Arr. May 27
APPALACHEE □	Avonmouth	Philadelphia	Arr. May 23
APSCHERON	Venice	Batoum	Arr. June 1
ARAL	Algiers	—	Off the Wight, May 31
ARAS	Philadelphia & London	Sunderland	Arr. May 27, in Port, May 31
ASHTABULA □	Tientsin	San Francisco	Arr. May 10, in Port, May 12
ASTRAKHAN	Tyne	Philadelphia	P. Butt of Lewis, May 25
AUGUSTA	Brunsbuttel	Hamburg	In Port, May 31
AUREOLE	Manchester	Tyne	Arr. May 2, in Port, May 3
AZOV	Tyne	Callao	Arr. Mar. 29
BAKU STANDARD	Cardiff	Tyne	In Port, May 31
BALAKANI†	Naples	Kustendje	P. Cape Darmi, May 31
BATOUM	Port Arthur (Texas) & Manchester	Plymouth	Arr. May 21
BAYONNE	New York	Tunis	L. May 16
BEACON LIGHT	Philadelphia	Rouen	P. Lizard, May 30
BLOOMFIELD	Sheerness	Tyne	Arr. May 21
BORJOM	—	—	Tr. b'tw'n Black Sea & Levant
BRILLIANT	Philadelphia	Hamburg	P. Del. Break., May 20
BRILLIANT (Br. bq.)	At Philadelphia	Bombay	May 21
BRITISH SUN	Tyne & Emden	Galveston	P. Cape Henry, May 23
BROADMAYNE	Cardiff	Kustendje	P. Sagres, June 1
BUFFALO	New York	Hamburg	P. Beachy Head, June 2
BULLMOUTH*	Samboe	Melbourne	Arr. about June 1
BULYSSES*	Balekpappan	Singapore	L. May 27
BURGERMEISTER PETERSEN	Emden	Philadelphia	Arr. May 31
BUYO MARU	Hong Kong	San Francisco	Sd. Kobe, May 7
CADILLAC	New York	Port Natal	L. May 14
CALCUTTA (B. b.) □	San Francisco	Yokohama	Arr. May 18
CAMILLO (Late "Joyo Maru")	New York	Dublin	L. May 25
CAPTAIN A. F. LUCAS	Tampa	New York	In Port, May 21
CARDIUM*	Soesoe	Europe (via Cape)	P. Cape Point, May 28
CARPATHIAN†	Queenstown	Port Arthur (Texas)	L. May 31
CAUCASIAN†	Hamburg	New Orleans & Gulf Port	P. Dover, May 14
CHARLOIS	Philadelphia	Amsterdam	In Port, May 31
CHESAPEAKE □	New York	Port Natal	L. May 20
CHESTER	Antwerp	Kustendje	P. Dover, May 28
CHEYENNE	Savona	Philadelphia	Arr. June 1
CITY OF EVERETT	Montreal	New York	In Port, May 21
CIUDAD DE REUS	Aviles	New York	Arr. June 1
CLAM*	Freshwater	Tsingtau	L. May 29
CLEARFIELD	Rouen	Tyne	In Port, May 31
CONCH*	Bombay	Aroe Bay	At Singapore, May 28
CONRAD MOHR	Philadelphia	Christiana	L. May 27
COWRIE*	Scesoe	Colombo	At Cochin, May 30
CUYAHOGA □	Bengkalis	U.K.	At Las Palmas, June 1
CYMBELINE	London	Newport	In Port, June 1
CZAR NICOLAI II.	Batoum	Hamburg	P. Beachy Head, May 30
DAGHESTAN	Tyne	Philadelphia	P. Dunnet Head, May 29
DAKOTAH □	San Francisco	Karatzu	At Yokohama, about May 25
DANUBIAN†	Port Arthur (Texas)	London	L. May 30
DELAWARE □	New York	Plymouth	Arr. May 31
DERBENT	Antwerp	Batoum	L. May 22
DEUTSCHLAND	Rotterdam	Philadelphia	L. May 25
DIAMANT	Philadelphia	Rotterdam	P. Scilly, June 2
EDWARD DAWSON	Norfolk (Va.)	Liverpool	Arr. May 30, in June 1
EL LOBO	San Francisco	Payta	Arr. May 11
ELAX*	Freshwater	Yokohama	L. May 24
ELISE MARIE	Philadelphia	Hamburg	In Port, May 31
ENERGIE	Bremerhaven	Philadelphia	At New York, May 30
ERIVAN	Batoum	Barcelona	Arr. May 28 & Sd. May 31 St. Louis (Rhone)
EUPLECTELA*	Suez	Aroe Bay	L. May 30
EXCELSIOR	Rotterdam	New York	L. May 22
FRANCE MARIE (French bq.)	Santander	Marseilles	In Port, May 31
GEESTEMUNDE	Stettin & Tyne	Philadelphia	P. Dunnet Head, May 25
GENESSE □	Boston	New York	Arr. May 21
GEORGIAN PRINCE	Vallo	Tyne	In Port, May 31
GOLDMOUTH*	Tyne	Aroe Bay	At Port Natal about May 17
GUTHEIL	Philadelphia	Cienfuegos	P. Del. Break., May 21
H. C. HENRY	Astoria	Guaymas	L. May 14
HAINAUT (Du. sh.)	Antwerp	New York	Off the Wight, May 3
HARRY WADSWORTH	Port Arthur (Texas)	Queenstown	Sd. Norfolk (Va.) & P. Cape Henry May 17
HELIOS	Emden	Philadelphia	Arr. May 29
HERMIONE	Balekpappan	Melbourne	Arr. abt. June 1
HESPERUS	Hamburg	New York	Arr. May 31
HOTHAM NEWTON	Batoum	Zeebrugge	Arr. May 31
HYRCANIA	Batoum	Avonmouth	Arr. May 31
IOANNIS COUTZIS	Blyth	Piræus	L. May 27
IROQUOIS □ (towing barge Navahoe)	London	New York	Arr. May 24
J. A. CHANSLOR	Newport Nws.	San Francisco	Arr. May 19
J. B. AUG. KESSLER	Kustendje	Alexandria	P. Constant'ple, May 29
JAMES BRAND	Portland (Dorset)	Tyne	In Port, May 31
JULES HENRI (French bq.)	New York	Marseilles	L. May 27
KIYO MARU	Arica	Hong Kong	L. May 4
KURA	Kustendje	Hull	P. Sagres, May 30
LA CAMPINE	Antwerp	Batoum	P. Sagres, May 22
LA FLANDRE	Ghent	Antwerp	In Port, May 31
LA HESBAYE	Baltimore	Antwerp	In Port, May 31
LACKAWANNA □	Manchester	Philadelphia	P. Fastnet, May 23
LE COQ†	New York	Havre	L. May 28
LOUTSCH	Novorossisk & Libau	Petersburg	Sd. Libau, May 28
LUCERNA	Novorossisk	Brunsbuttelkoog	P. Sagres, May 29
LUCIGEN	Trial Trip	Tyne	Arr. and in Port May 31, laid up
LUCILINE†	Rouen	Kustendje	P. Gibraltar, June 2
LUMEN	Rouen	Tyne	In Port, May 31
LUTETIAN†	Novorossisk	Havre & Tyne	L. May 30
LUX†	Seville	New York	L. May 29
MANHATTAN	Tunis	New York	P. Nantucket, May 25
MANNHEIM	Hamburg	Philadelphia	Off the Wight, May 23
MARGARETHA	Genoa	Philadelphia	L. May 30
METEOR	Antwerp	Novorossisk	At Gibraltar, May 30/1
MEXICAN PRINCE	Havana	London	Arr. May 26, in Port, June 1
MINA BREA	Caleta Buena	Callao	In Port, May 29
MINHLA	Rangoon	Akyab	L. May 28
MIRA	Calais	Blyth	In Port, May 18, laid up

Vessel.	From.	For.	Latest Date and Position.
MUREX*	Colombo	Aroe Bay	At Singapore, May 31
NARRAGANSETT	London	New York	8 miles W. St. Catherine's Pt., June 2
NEW YORK □	New York	Rotterdam	Arr. May 21, in Port, May 31
NIAGARA	New York	Hankow	At St. Vincent (C.V.), May 20
OBERON	Panama	San Francisco	Arr. May 21
OCEAN	Antwerp	Rotterdam	In Port, May 31
OILFIELD	Rouen	Tyne	In Port, May 31
ORIFLAMME†	Kustendje	Cette	Arr. May 26
OTTAWA □	Sunderland	Newport N'ws	Arr. May 31
OURAL	Batoum	Dunkirk	P. Sagres, June 1
PATELLA*	Saigon	Singapore	Arr. May 13
PAUL PAIX	Tees	U.S.A.	P. Dunnet Head, May 1
PAULA	New York	Danzig	L. May 28
PECTAN	San Francisco	Taltal	28 mls. S. Magdalena Bay, May 10
PENNOIL	Philadelphia	Dover	L. May 23
PETROLEINE	Philadelphia	Blaye	P. Del. Break., May 18
PETROLEUM	—	—	Engaged on Government business
PHOEBUS	New York	Hamburg	Arr. May 29, in Port, May 31
PINNA†	New York	London	L. May 30
POTOMAC □	Liverpool	New York	Arr. May 27
PROGRESSO ARGENTINA (Ar. bq.)	Port Arthur (Texas)	Buenos Ayres	Arr. Dec. 10, dismantled
PROMETHEUS	New York	Hamburg	Arr. May 27, in Port, May 31
PRUDENTIA	Hull	New Orleans	P. Prawle Pt., May 13
PURELIGHT	Philadelphia	Hamburg	Arr. May 22, in Port, May 31
QUEVILLY (Fr. bq.)	Rouen	Havre	In Port, May 31
RENDOVA (Br. bq.)	Sydney	Liverpool	L. May 2
RION	Penarth	Batoum	Arr. May 27
ROCK LIGHT†	Braila	London	P. Pera, May 26
ROMANY*	Barrow	Tyne	Arr. May 21, in Port, May 31
ROTTERDAM	New York & Amsterdam	Rotterdam	In Port, May 31
ROUMANIAN†	Newport Nws	Antwerp	L. May 28
RUSSIAN PRINCE	Avonmouth	Tyne	In Port, May 31
SALAHADJI*	Sarakan	Hong Kong	L. May 24
SAN ANTONIO	Philadelphia	London	Arr. May 22, fn Port, June 1
SAN IGNACIO DE LOYOLA (Sp. bq.)	Pasages	New York	L. May 9
SANTA MARIA	Kahului	P. San Luis	Arr. May 17
SANTA RITA	P. San Luis	Honolulu	Cd San Francisco, May 16
SARANAC □	Philadelphia	Calcutta	Arr. May 8
SAXOLEINE	Kustendje	Rouen	P. Barfleur, May 31
SEMINOLE □	San Francisco	Yokohama	L. May 13
SERVIAN†	Philadelphia	Hamburg	Arr. Cuxhaven, Mar. 31
SIRIUS (Ger.)	Cuxhaven	—	L. May 28
SNOWFLAKE	Penarth	Philadelphia	Arr. May 28
SOYO MARU	Yokohama & Hong Kong	Kustendje	Arr. May 24
SPONDILUS*	Samboe	Europe (via Cape)	L. May 19
STANDARD	Philadelphia	Swinemunde	P. Dunnet Head, May 28
STROMBUS*	Samboe	Channel	Off Pantellaria, May 25
SULTAN VAN LANGKAT*	Hong Kong	Balekpappan	L. May 22
SUNLIGHT (Br. bq.)	Boston	Macoris	Arr. May 23
SURAM	Batoum	Copenhagen	Arr. May 31
SUWANEE □	Tampico	New York	Arr. May 22
SVIET	Odessa	Alexandria	Sd. Kustendje, May 27
TAMARAC □	London	Tyne	Arr May 26
TELENA*	Philadelphia	Madras & Calcutta	L. May 24
TEREK†	Kustendje	Hull & Sunderland	Arr. May 23
TEXAS	Lemnos	Smyrna	Sd Mitylene, May 26
TIFLIS	Philadelphia	Hamburg	P. Del. Break., May 18
TIOGA □	Kustendje	London	Cld. Constant'ple, May 24
TONAWANDA □	London	Galveston	Arr. May 18
TRINCULO	Port Harford	Panama	Cd. San Francisco, May 6
TROCAS*	Shanghai & Bremerhaven	Hamburg	In Port, May 31
TUSCARORA	San Francisco	Muroran	L. May 11
VEDRA	Batoum	Thameshaven & Antwerp	Cld. Constant'ple, May 26
VILLE DE DIEPPE (Nor. bq.)	Liverpool	Manchester	Arr. May 23/4, in Port, May 25
VOLUTE*	Hankow	Palembang	Sd Shanghai, May 24
WASHINGTON	Taku	Singapore	L. May 24
WEEHAWKEN	London	Hull	P. Southend, June 1
WILLKOMMEN	Philadelphia	Stockholm	L. May 20
WINNEBAGO	Calcutta	San Francisco	Arr. May 31

Latest Market Intelligence.

LONDON OIL MARKET.

Supplied by Messrs. Benjamin & Gee, 31, St. Mary Axe, E.C.

June 3rd, 1910.

Refined petroleum is still unaltered in price, current quotations being as follows:—Russian, 5¾d.; Roumanian, 7d.; American, 6d.-6¼d.; Water White, 7d.-7¼d.

LUBRICATING OILS

are unchanged:—

American pale, £6 10s. to £9 10s.
American dark cylinder, from £7 12s. 6d.
American filtered cylinder, from £10 12s. 6d.
No. 1 Russian, for Spot, £8.

TURPENTINE.

American Turpentine is fluctuating considerably, and has been both higher and lower during the last few days than the present price of 43s. 3d. for Spot; July-December, 40s. 6d.

LIVERPOOL OIL MARKET.

June 3rd.

Refined oils are quiet, and sellers quote 6d., for Russian, Galician or Roumanian; and 6½d. to 7d. per gallon for American.

LATEST AMERICAN PRICES.

New York, June 2nd.

Refined, in cases, is steady at 10·15; Standard White, 7·75; Credit balances, 1·35.

Philadelphia, June 2nd.

Standard White is now quoted at 7·75.

GERMANY.

Hamburg, May 31st.

The petroleum market is without any change. American, ·800–6·30 marks; Pennsylvanian, 6·40 marks; Galician, 6·30 marks. Russian and Roumanian not on the market.

RUSSIA.

Baku, May 30th.

The market is without change. Crude oil is quoted at 14½-15 copecs per pood spot. Mazout 15-15½ copecs.

BELGIUM.

Antwerp, May 31st.

The petroleum market is without change. Price of Standard White, spot, 20·50 francs per 100 kilos.

ROUMANIA.

May 31st.

	Francs.
Crude oil from different fields, including pipe line charges, per 100 kgs. ...	3·40–3·50
Refined oil, exclusive of taxes, ex. refinery...	8·10
Residuals in tank waggons, at refinery ...	3·50–3·60
Paraffin	110–120

Prices for Export.

Refined oil, f.o.b., per 100 kgs.	5·25–5·50
Benzine, sp. gr. 0·710–0·715, f.o.b.	16–17
,, sp. gr. 0·715–0·720 ,, ...	14·50–15·50
,, sp. gr. 0·730–0·740 ,, ...	10–11
,, sp. gr. 0·745–0.755 ,, ...	9–10
Lubricating, horticultural	33
,, prime	36
,, extra	42
,, Royal, "Steaua Romana" ...	45
Imperial "Aurora"	46
Vacuum-Ideal "Vega"	52

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IMPORTS of PETROLEUM into UNITED KINGDOM

Specially prepared for this Journal by the Custom House.

FOR THE WEEK ENDED MAY 23RD, 1910—

Date.	Port and Importers.	Description.	No. of Gals.	Port Whence.
May	London—			
17	Price's Patent Candle Co.	Lamp	820	Antwerp
17	A. Duckham and Co.	Lub.	120	,,
17	T. H. Lee	Lub. Gr.	250	Hamburg
17	Port of London Authority	Lub.	40	New York
17	,,	,,	390	,,
17	W. H. J. Alexander	,,	10,660	,,
17	British and Foreign Wharf	,,	240	Antwerp
17	Union Lighterage Co.	Fuel	1,600	Havre
18	Worthington and Boler	Lub.	7,600	Philadel.
18	Anglo-American Oil Co. (Tamarac)	Gas	1,662,000	New York
18	Port of London Authority	Lub.	2,000	Hamburg
18	,,	,,	1,440	,,
18	,,	,,	240	Antwerp
19	Bowring Petroleum Co. (San Antonio)	Naphtha	211,600	Philadel.
19	,, ,,	Benzine	217,190	Coatzacoalcos
19	,, ,,	Lamp	1,511,330	,,
19	Snowden, Sons and Co., Ltd.	Lub.	1,010	Hamburg
19	Page, Son and East	Lub. Oil and Gr.	200	Antwerp
21	H. Johnston and Sons	Lub.	1,000	Hamburg
21	T. H. Lee	,,	390	Antwerp
21	A. Brown and Co.	,,	2,400	Philadel.
23	Wilkins, Campbell and Co	Lub. Gr.	1,280	,,
23	Produce Brokers' Co.	Lub	2,600	,,
23	,,	,,	30,800	New York
23	Mordaunt Bros.	,,	12,000	,,
23	British Monogram Oil Co.	,,	1,030	,,
23	,,	Lub. Gr.	100	,,
23	W. H. J. Alexander	Lub.	2,670	,,
23	J. H. White	,,	2,400	Philadel
23	E. J. Walkenshaw	,,	2,400	,,
23	A. Brown and Co	,,	13,000	,,
23	,,	Lamp	3,960	,,
23	Langley, Smith and Co.	Lub.	2,400	Philadel.
23	T. H. Lee	Lub. Gr.	1,000	Hamburg
23	J. Harrison, Ltd.	,,	1,360	Antwerp
23	Wilkins, Campbell and Co.	,,	720	,,
23	British and Foreign Wharf	Lub.	2,730	,,
23	Page, Son and East	Lub. Oil and Gr.	400	,,
	Liverpool—			
17	A. E. Bennett and Co.	Lub.	50	,,
17	C. W. Field and Co.	,,	420	,,
17	C. C. Wakefield	Lub. Gr.	240	,,
17	W. and F. Walker	Lub.	80	,,
17	Valvoline Oil Co.	,,	15,170	New York
17	Burnaby and Chantrell	,,	220	,,
17	W. Gibson and Sons	Lamp	2,050	Boston
17	Pickfords, Ltd.	Lub. Oil and Paste	100	Hamburg
17	J. Light and Son	Lub. Gr.	220	,,
18	,,	Lub.	2,000	New York
18	Fellows, Morton and Clayton	Lub.	1,240	New York
18	E. Harrison and Co.	,,	6,880	,,
18	Ismay, Imrie and Co.	,,	2,400	,,
18	G. B. Taylor	,,	77,400	,,
18	Railton, Campbell and Co.	Lub. Gr.	330	,,
18	Meade-King, Robinson & Co.	Benzine	50,000	Rotterdam
19	Ismay, Imrie and Co.	Lub.	770	New York
19	A. Hopps and Sons	M. Colza	2,880	Baltimore
21	W. B. Dick and Co.	Lub.	9,950	,,
21	Meade-King, Robinson & Co.	,,	2,600	,,
21	,,	,,	10,320	,,
21	Liverpool Storage Co.	Fuel Res.	4,000	Newp't Nws.
23	J. T. Fletcher and Co.	Lub. Gr.	80	Antwerp
23	Valvoline Oil Co.	Lub.	4,100	New York
23	Pickfords, Ltd.	L. Paste	250	Hamburg
23	Crew, Levick and Co.	Lub.	1,990	,,
23	Burnaby and Chantrell	Lub. Gr.	300	,,
	Barrow—			
17	Asiatic Pet. Co. (Romany)	Benzine	1,439,220	Pulo Samboe
	Bristol—			
17	First Anglo-Russian Oil Co.	Lub. Gr.	340	Hamburg
19	E. Stock and Sons	Lub.	2,000	,,
	Goole—			
17	Goole Steamship Co.	,,	70	,,
	Grimsby—			
17	J. Sutcliffe and Sons	,,	250	,,
	Hull—			
17	Wilsons and N.E. Co.	,,	6,120	,,
18	W. Gilyott and Co.	,,	99,400	New York
18	T. Wilson, Sons and Co.	,,	46,200	,,
19	,,	,,	2,000	Trieste
21	Wilsons and N.E. Co.	,,	1,080	Antwerp
21	,, ,,	,,	1,000	Dunkirk
	Manchester—			
17	Liverpool Storage Co.	,,	40	Hamburg
17	,,	,,	13,100	New York
17	W. Hodgson and Co.	Lub. Gr.	1,310	,,
17	Diamond Lubricating Co.	Lub.	2,900	,,
17	Crew, Levick and Co.	,,	8,620	Philadel.
17	G. B. Taylor	,,	50,240	,,
17	,,	,,	125,360	New York
17	Meade-King, Robinson & Co.	,,	10,400	Hamburg
17	Anglo-American Oil Co. (Lackawanna)	,,	404,870	Philadel.
19	Lamport and Holt	,,	800	New York
	Newcastle—			
19	Tyne-Tees S.S. Co.	Lamp	2,000	Hamburg
	Plymouth—			
21	Plymouth and Stonehouse Gas Co. (Batoum)	Gas Res.	440,000	Pt. Arthur

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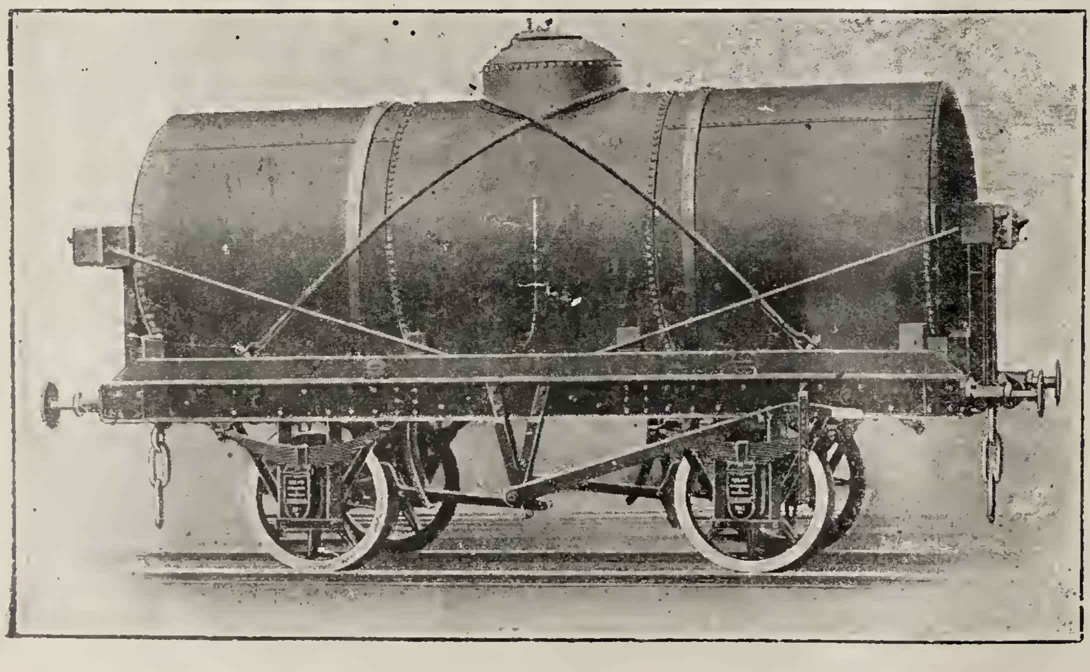

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No corrosive fumes given off. Prevents
rust at the joints and consequent leakage.
Stronger work. Less solder required.

IMPORTS.–(*Concluded*).

Date. May	Port and Importers	Description.	No. of Galls.	Port Whence.
	Aberdeen—			
17	R. C. Reid and Co.	Lub. Oil and Gr.	110	Hamburg
	Glasgow—			
18	Allan Bros. and Co.	Lub.	100,070	Philadel.
23	Anchor Line	,,	30,910	New York
	Grangemouth—			
14	W. Graham-Yooll and Co.	Lamp	2,000	Hamburg
	Leith—			
17	G. Gibson and Co.	Lub.	480	Antwerp
19	,,	,,	240	,,
19	W. Graham-Yooll and Co.	Lamp	2,180	Hamburg
23	,,	,,	2,180	,,
19	J. Currie and Co.	Lub.	180	,,
21	,,	,,	1,640	,,
	Total for the Week		6,706,720	

FOR THE WEEK ENDED 30TH MAY, 1910—

Date. May	Port and Importers	Description.	No. of Galls.	Port Whence.
	London—			
24	British and Foreign Wharf	Lub.	3,100	Antwerp
24	Lub. and Fuel Oils Co.	,,	4,100	Philadel.
24	Anglo-American Oil Co.	,,	41,200	,,
24	,,	,,	62,800	,,
24	,,	,,	83,800	New York
24	Port of London Authority	,,	7,600	,,
24	Beck and Pollitzer	,,	2,200	,,
23	Mordaunt Bros.	,,	2,000	Philadel.
24	Lucas and Spenser	,,	1,220	,,
24	Fielder, Hickman and Co.	,,	18,720	,,
24	E. J. Walkinshaw	,,	4,000	,,
25	Bramwell, Fern and Co.	,,	2,490	,,
25	A. C. Simmons	,,	2,600	,,
25	Mercantile Lighterage Co.	,,	11,340	,,
25	,,	,,	27,950	New York
25	Vacuum Oil Co.	,,	1,270	,,
26	Snowdon, Sons and Co.	,,	620	Riga
26	Port of London Authority	,,	390	New York
26	H. P. Wheatley and Co.	,,	2,500	Antwerp
26	Page, Son and East	,,	200	,,
26	Port of London Authority	,,	4,870	Hamburg
26	Schlieman's Oil Co.	,,	2,600	Baltimore
27	Anglo-American Oil Co.	Road Oil	16,400	New York
27	,, (Narragansett)	Lamp	2,502,450	,,
27	,, ,,	Lub.	421,740	,,
27	Vacuum Oil Co.	,,	210	,,
27	R. Park and Co.	,,	880	Calais
27	C. Price and Co.	,,	250	Riga
28	J. Spurling	,,	300	New York
28	Anglo-American Oil Co.	,,	10,120	,,
28	T. H. Lee	,,	310	Hamburg
30	Thomas and Bishop	,,	100	Rotterdam
30	W. F. Watt	,,	4,000	Hamburg
30	J. Harrison	,,	210	Antwerp
30	British and Foreign Wharf	,,	40	,,
30	Port Authoriy	,,	1,000	Hamburg
30	Langley, Smith and Co.	,,	3,030	Baltimore
30	Scott's Wharf	,,	2,000	New York
30	Produce Brokers' Co.	,,	10,000	,,
30	Mordaunt Bros.	,,	5,000	,,
	Liverpool—			
24	G. B. Taylor	,,	14,400	,
24	,,	,,	18,000	,,
24	D. Owen and Son	,,	4,400	,,
24	J. Light and Son	,,	1,000	,,
24	S. R. B. Melling and Co.	,,	1,200	,,
25	Biglands, Sons and Jeffrys	,,	10,200	,,
25	Bowring Petroleum Co.	,,	5,020	Philadel.
25	Midland Railway	,,	2,990	,,
25	W. B. Dick and Co.	,,	40,250	,,
25	Worthington and Boler	,,	200	,,
25	Meade-King, Robinson & Co.	,,	38,720	,,
21	E. Harrison and Co.	,,	4,000	,,
25	George B. Taylor	,,	22,400	,,
25	Crew, Levick and Co.	,,	22,940	,,
25	,,	M.Colza	10,540	,,
27	Bramwell, Fern and Co.	Lub.	2,460	,,
27	D. Currie and Co.	,,	420	Hamburg
27	Pickford's	Lub. Oil and Paste	120	,,
27	American Line	Lub.	31,880	Philadel.
27	Bowring Petroleum Co.	,,	2,280	New York
30	D. Owen and Son	,,	450	,,
30	C. W. Field	,,	200	Antwerp
30	Pickfords, Ltd.	Lub. Oil and Paste	370	Hamburg
	Bristol—			
23	Pickfords, Ltd.	Lub. Oil and Gr.	1,030	,,
23	First Anglo-Russian Oil Co.	Lub.	2,730	New York
23	Anglo-Bosphorus Oil Co.	,,	3,230	,,
23	C. Hill and Sons	,,	31,120	,,
24	Ford and Canning	,,	1,200	,,
24	J. and R. Bush	,,	18,200	,,
28	Anglo-Bosphorus Oil Co.	,,	3,680	Hamburg
28	Pickford's, Ltd.	Lub. Oil and Gr.	750	,,
	Cardiff—			
25	Bristol S. Navigation Co.	Lub. Gr.	130	,,
	Goole—			
25	Goole S.S. Co.	Lub.	530	,,
	Hull—			
24	Wilsons and N.E. Co.	,,	1,600	Antwerp
24	,,	Lub. Oil and Gr.	370	Hamburg
24	British Pet. Co. (Terek)	Lamp	944,000	Kustendje
26	Wilsons and N.E. Co.	Lub.	6,280	Hamburg
26	T. Wilson Sons and Co.	,,	68,240	New York
	Manchester—			
23	D. Currie and Co.	Lub. Gr.	880	Hamburg
24	Pickfords, Ltd.	Lub.	110	,,
24	Meade-King, Robinson & Co.	,,	10,400	,,
24	Wilson, Son and Co.	,,	180	Rotterdam
25	J. T. Fletcher and Co.	,,	320	Antwerp
30	Produce Brokers' Co.	,,	4,000	Galveston
30	George B. Taylor	,,	170,200	New York
30	Diamond Lubricating Co.	,,	3,480	,,
30	W. Hodgson and Co.	,,	2,740	,,
	Newcastle—			
26	Tyne Tees Steamship Co.	,,	800	Antwerp
28	,,	,,	240	,,
28	,,	,,	1,040	Hamburg
	Southampton—			
25	American Line	,,	82,000	New York
	Sunderland—			
24	British Pet. Co. (Terek)	Lamp	497,000	Kustendje
28	,, (Aras)	,,	825,000	Philadel.
	Swansea—			
26	Bristol Steam Nav. Co.	Lub. Gr.	240	Antwerp
28	,,	L.Paste	150	Hamburg
30	Richards, Turpin and Co.	Lub.	3,600	New York
	Aberdeen—			
27	R. Connon Reid and Co.	Lub. Gr.	40	Hamburg
3	John Cook and Son	Lub.	480	Riga
	Dundee—			
26	D. Alexander and Sons	,,	800	Hamburg
	Granton—			
28	Asiatic Petroleum Co. (Neerlandia)	Spirit	427,800	Rotterdam
	Glasgow—			
24	Clyde Shipping Co.	Lub.	120	Antwerp
	Grangemouth—			
25	J. Currie and Co.	,,	1,280	Hamburg
25	W. Graham-Yooll and Co.	Lamp	2,000	,,
27	,,	,,	1,000	,,
	Leith—			
24	G. Gibson and Co.	Lub.	430	Antwerp
25/4	T. Cowan	,,	5,040	Treport
26	W. G. Yooll and Co.	Lamp	2,180	Hamburg
26	J. Currie and Co.	Lub.	2,000	,,
27	,,	,,	320	Bremen
28	,,	,,	320	Hamburg
	Dublin—			
27	Palgrave, Murphy and Co.	,,	200	Antwerp
	Deduct to correct—		6,649,530	
	Barrow—			
2/5	Anglo-American Oil Co. (Weehawken)	Spirit	13,120	Kustendje
17	Asiatic Pet. Co. (Romany)	Benzine	10,870	Pulo Samboe
	Dublin—			
16/4		Lamp	26,800	Philadel.
	Add to correct—		6,598,740	
	Middlesbro'—			
25/5	E. Harris and Co.	Lub. Oil and Gr.	2,080	
	Total for the Week		6,600,820	
	Total for the Fortnight		13.307,540	

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Lest we Forget.—No firm can become truly great without judicious advertising. Shall we send you the Review's rates?

The Petroleum Review.

By PAUL DVORKOVITZ.

Vol. XXII. *(New Series.)* June 18th 1910. No. 479

THE PETROLEUM REVIEW:

The ANNUAL SUBSCRIPTION for both English and Foreign readers is 26s., including Postage. Single Copies may be had at the offices at 1s.

The Editor would esteem it a favour if readers, when communicating with the various firms advertising in our pages, would mention the "Review."

Contributions upon items of interest are always welcomed from subscribers, but in each case these should be accompanied with the name and address of the sender, not necessarily for publication.

Editorial Notes.

Next Year's Petroleum Congress. With the postponement of the Fourth International Petroleum Congress, which should have been held in Galicia this year, comes the information that the Congress will meet in America during 1911. This interesting piece of news is conveyed in a circular recently issued by the Secretary of the Third International Congress, who, in writing to those gentlemen who have been identified with similar gatherings of the past, asks whether it could not be arranged to have the Congress in America next year. The fact that our friend - Dr. Day—has been agitating ever since the Liege Congress to get the Congressmen to meet in America, is in itself sufficient to decide the question. As a matter of fact, it has already been arranged that the International Commission for unification of methods for the analysis of petroleum should meet next year in the States, and thus, with the postponement of the Galician Congress, it will be an easy matter to hold the International Congress in America, and arrange the sittings of the unification commission simultaneously. As the commercial home of the petroleum industry, Congressmen will have much to learn by a visit to the States, and we are confident that Dr. Day will arrange for them that hospitality with which his name is synonymous.

The "Shell" Company. Sir Marcus Samuel was well within the mark when, at the amalgamation of the Shell Transport and Trading Co., Ltd., and the Royal Dutch, he assured the shareholders that they could look forward to the future with the greatest confidence. His anticipations have been realised to the full, and still the future is exceedingly promising. Though an increase of 2½ per cent. in the dividend will be declared at next week's meeting making 22½ per cent. per annum—the profits of the company have, as a matter of fact, been somewhat smaller during the past year. The following figures will suffice to shew the division of the huge profits which have been made during the past three years:—

	1907.	1908.	1909.
Net profits	£541,447	£639,177	£605,374
Preference dividend 5 per cent. ..	50,000	50,000	50,000
	491,447	589,177	555,374
Ordinary dividend..	330,000	460,000	542,500
Ditto per cent.	15	20	22½
	161,447	129,177	12,874
To reserves	270,000	—	—
	108,553		
Brought forward	172,370	63,817	192,994
Carry forward	£63,817	£192,994	£205,868

Without doubt the Shell Co. occupies under the amalgamation a considerably stronger position than it did previously, for instead of being one working unit in the fields, it is now a partner with others in widespread and well-established productive petroleum territories. Needless to state, the position which the Shell has secured for itself, eloquently speaks of the sound business management which moulds its policy.

The Baku Russian Petroleum Company. The news which we are able to publish respecting the Baku Russian Petroleum Co., Ltd., is of a most encouraging nature for shareholders. We learn upon authority that negotiations between the London Board and the Baku Administration are now in progress, having for their aim the speedy resumption of boring operations on the company's plots at Bebe-Aibat and Balakhany. It is proposed to start work upon two new wells on the Bebe-Aibat plots and two wells on plot 173 Saboontchi. Simultaneously, the Administration will resume the work of deepening and repairing numerous wells upon which operations were suspended owing to the financial difficulties of the old company. The new wells will be located upon the advice of the highest geological authorities in the Baku district, and all the work will be put up to competition. The present is reported as an exceptionally opportune time for these operations. We have all along advocated that an energetic drilling programme was the one thing which the old company needed in order to become highly prosperous, and now that, under the new regime, this is to be undertaken, we have no forebodings as to the result.

America's Petroleum Export Trade. The official returns of the petroleum exports from America during April are by no means satisfactory. We are well aware that there are always fluctuations in regard to the bulk export of petroleum products, caused in many instances by the position of the tank fleet, yet making due allowance for this, one cannot shut one's eyes to the fact that American petroleum products are finding it increasingly hard to keep a strong position on the world's markets. The figures of exports for April, which we give upon another page in this issue, are conclusive. They shew a decline in the quantities of both crude and every kind of product, and compared with the exports for the corresponding month of last year, display a deficit for the month of almost two million dollars in value. The exports of illuminating oil for the month were ten million gallons less than a year ago, and the total export was decreased by approximately 23,000,000 gallons. As we say, these latest figures of America's petroleum export trade are in no way satisfactory.

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BAKU PRODUCTION DURING APRIL.

The production of crude oil at Baku during April amounted to 40,228,854 poods, of which 9,985,139 poods were obtained at Bebe-Aibat and 30,243,715 poods on the old areas.

The following was the production of the leading firms at Baku during the month:—

	Poods.
Nobel Bros.	5,074,894
Caspian and Black Sea Society	2,520,050
Mantascheff and Co.	2,473,497
Caspian Society..	2,029,771
Baku Petroleum Co.	1,951,408
Zoubaloff	1,628,000
Mirzoeff Bros.	1,388,600
Pitoeff and Co.	1,336,100
Moscow-Caucasian Co.	1,127,600
Russian Nafta Society..	1,020,300
Nagieff Musa	988,385
Russian Petroleum Co.	983,082
Aramazd Co.	901,100
Kavkaz Co.	755,722
Baku Russian Petroleum Co., Ltd	654,200
Tiflis Petroleum Co.	650,500
A. S. Melikoff and Co.	639,100
Bibi-Eybat Petroleum Co., Ltd.	638,500
Oleum	540,828
European Petroleum Co., Ltd.	540,000
T. M. Schibaieff Co.	488,600
Moscow-Volga Co.	481,000
Ter-Akopoff Co.	479,900

THE TIN PLATE MARKET.

Messrs. Norton, Owen & Co., of 4, Bishopsgate Street Within, London, E.C., report under date June 16th, 1910, as follows:—

The expansion of the tin plate trade continues, as will be seen from the official returns of the exports for May and January-May at foot.

A large amount of business in oil sizes has recently been put through at full prices, and the market is firm. In order to meet the constantly increasing demand, our principals, The Old Castle Iron and Tin Plate Co., Ltd., of Llanelly, have just decided to lay down six additional mills, to be driven by a powerful engine of the most up-to-date type, together with annealing furnaces, cold rolls, pickling machines, tin house, sorting room, and warehouse, forming a complete six mill plant. This will bring the total number of their mills up to 20, and enable them to turn out about 18,000 basis boxes of plates per week, giving employment to about 1,000 hands. The work has been put in hand and will be pushed forward with all speed.

We quote oil sizes to-day:—

IC 18¾ × 14	124 sheets	110 lbs.	13/10½ per box.
IC 19¼ × 14	120 ,,	110 ,,	13/10½ ,,
IC 20 × 10	225 ,,	156 ,,	19/4½ ,,

F.o.b. Wales. Tin lining and iron hooping extra.

EXPORTS OF TIN PLATES.

	May. 1909. Tons.	May. 1910. Tons.	Jan.-May. 1909. Tons.	Jan.-May. 1910. Tons.
Russia	49	1,521	3,656	3,639
Germany	2,989	2,701	12,087	16,370
Holland	3,752	2,792	12,908	18,182
Belgium	590	923	4,049	4,806
France	1,895	1,011	8,146	6,397
Portugal	1,497	1,169	5,808	4,293
United States ..	6,250	6,958	25,224	34,944
British East Indies	4,692	4,219	22,760	22,660
Australia	1,483	2,994	8,246	11,997
Canada	3,090	2,037	12,376	8,497
Other countries ..	12,958	16,005	60,826	71,181
Total .. Tons	39,263	42,330	176,086	202,966

PIONEERS OF THE MAIKOP OIL FIELDS.

We herewith publish copyright photographs of two of the most well-known pioneers in connection with the Maikop oil field. One is of Mrs. Selitrenikoff, widow of the late M. Selitrenikoff, the barrister of Batoum, who years ago went to Maikop and was impressed with the potentialities of the region. The other photograph is of M. Winda, the well-known geologist, whose researches in connection with Maikop have gone a long way to establish confidence in the future of the field.

Madame Selitrenikoff.

M. Winda.

"The Romance of the Petroleum Industry."

. . LECTURE BY DR. PAUL DVORKOVITZ. . .

On Tuesday evening, at the Victoria Hall of the Hotel Cecil, London, Dr. P. Dvorkovitz held a reception of influential City gentlemen, during the course of which he delivered a lecture upon "The Romance of the Petroleum Industry," paying special attention to the newly discovered region of Maikop, in Southern Russia.

A large gathering of gentlemen having extensive business interests in City financial circles attended the reception, those present including the Hon. Lionel Holland, Sir Norman Stewart, Lord Strathcona, Sir Henry White, Baron de Kusel, Sir Thomas Salt, and Major Osborne Glynne.

The address was rendered all the more interesting by reason of a large number of dissolving views, most of which were reproduced from photographs taken by Dr. Dvorkovitz during his recent visit to the Maikop oil region.

At the outset, Dr. Dvorkovitz explained that he felt the present moment was opportune to have such a gathering of City gentlemen, and their presence in such large numbers that evening was in itself evidence of the great interest which was now being taken by all classes of the public in the oil industry. As a matter of fact, he believed that at present there were over 400,000 investors in oil in this country, and there was no doubt that in the near future that number—great as it now was—would be considerably augmented.

They had all read of the "boom" which there was in oil investments in this country at the present time. Generally it was understood that a boom was an abnormal period of interest, and was but of tentative duration, but in the case of oil he was confident that far from decreasing, the interest which the British investor took in petroleum enterprises would considerably increase as time went on, and would be permanent.

Trial Boring on Plot 412 where Oil was Struck at 350 feet.

The petroleum industry was in a fortunate though strange position, inasmuch as the ordinarily accepted economic principles of supply and demand did not apply to it. In other industries it was possible to apply the principles of supply and demand with considerable accuracy. For instance, it was comparatively an easy matter to find what amount of iron, coal, grain or cotton goods would be consumed in certain countries during a given period, but this was not so with regard to petroleum and its products. If they looked back ten years they would find that the world's production of crude oil was about 15,000,000 tons, but for last year it was almost 40,000,000 tons and the whole of that quantity found profitable application. The fact was that whereas in other industries the demand regulated the supply, in the case of petroleum, it was the supply regulated the demand. The possible applications of petroleum were so manifold that it was impossible to even estimate future consumption. Who was there twenty-five years ago in Russia who saw the remarkable opening which existed for the profitable employment of those 60 per cent. of petroleum products which were taken from the refineries and burned to waste in the fields? Yet to-day that once supposed to be useless product was in the form of liquid fuel being consumed under thousands of boilers throughout the Russian Empire, or by further refining finding application as those most profitable products—lubricating and vaseline oils. Then, again, in the case of the Dutch Indies when the petroleum industry was practically upon the verge of bankruptcy, owing to 30 or 40 per cent. of the light oils being burned to waste, who could have foretold the coming of the time when that light product would be used the world over as motor spirit? Who could also have prophesied that that intermediary product known as solar oil—useful neither for illuminating nor lubricating purposes—would eventually be used throughout the Continent of Europe, and especially throughout England, as a means of enriching the illuminating power of coal gas? Such was the romance of the petroleum industry, and owing to the absolutely unlimited possibilities which lay before the application of petroleum products, that romance was by no means yet a thing of the past. The chief reason for the practicability of the remarkable products of a petroleum lay in the fact that the crude oil consisted of a conglomerate of most valuable chemical hydrocarbons, and it was therefore possible to convert it into a variety of products, each of special value to commerce. For instance, what would Lancashire do to-day if it were not for analine dyes? Yet these most expensive chemical products of petroleum were once undreamt of.

Trial Boring on Plot No. 6 at Schirvansky.

Petroleum had always been looked upon more or less of a mystery. There were the sacred fires of the Caucasus known in olden times, and in America the Indian tribes worshipped by the healing streams of oil long before the advent of the drill, while Burmese priests regularly made pilgrimages to the oil-bearing districts in order to collect the mystic fluid.

But it was only in the early fifties that the first efforts were made toward the establishment of a commercial petroleum industry, and that was at the time when in Pennsylvania Colonel Drake drilled the first oil well. It was but one of the many instances found in oil romance that Colonel Drake, having established the American petroleum industry, died in absolute penury.

Dr. Dvorkovitz, after these general remarks upon the industry of petroleum, made particular reference to the new district of Maikop in Southern Russia. Though he said Maikop had only been known to the outside world for a few months, the wealth of petroleum which there existed had been known for many years. The native Cossacks had extracted the oil by means of primitive wells years ago, and even as far back as 1829 a refinery was in existence in the Kuban district, having been built by the Brothers Dubinin. This, the lecturer believed, was the first instance on record of the refining of crude oil for illuminating purposes. An attempt was made some thirty years ago to develop the district around Maikop, but the spot chosen was about sixty miles from Novorossisk, and in these developments a French group, together with the Rothschilds, were interested. Oil, however, was only found in small quantities, and so a prejudice at once sprung up against the Kuban district being oil bearing, and thus, with the exception of the Grosny fields, the whole region lay dormant with its wealth of petroleum until a year or two ago.

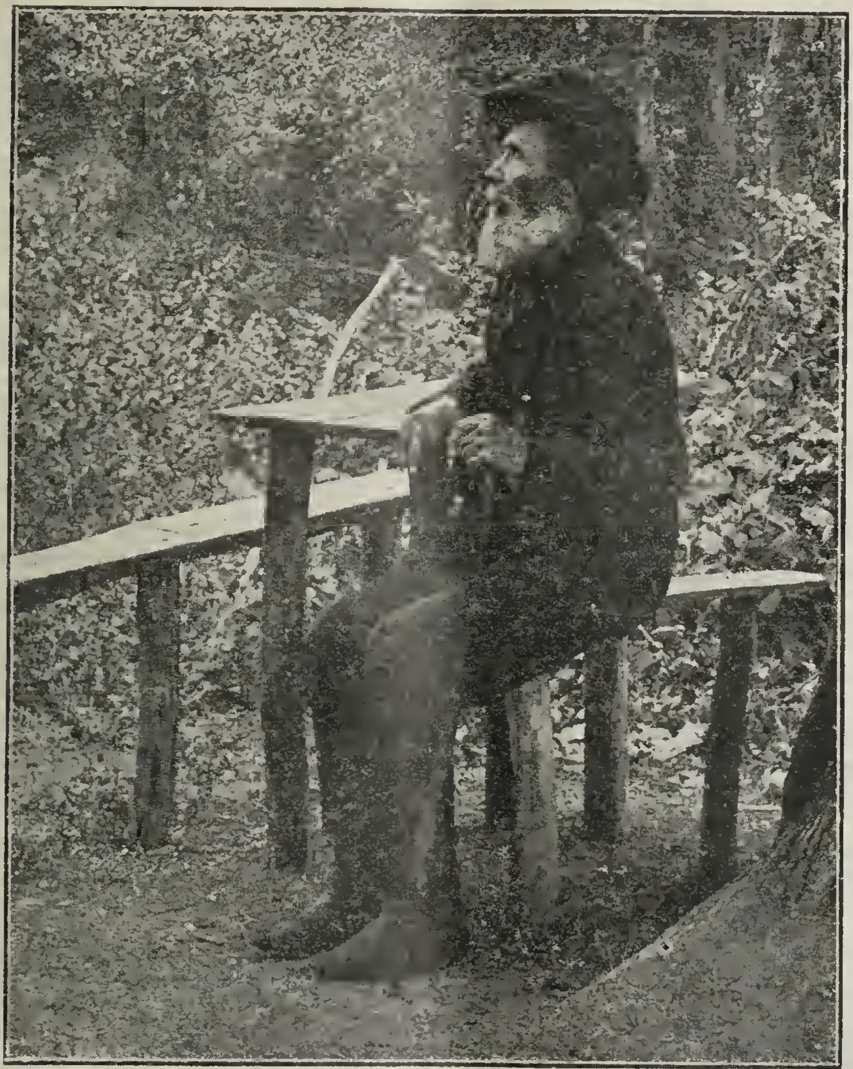
A barrister from Batoum—a Mr. Selitrenikoff—visited the Maikop region about ten years ago, and being convinced with the indications of petroliferous wealth, commenced to acquire concessions from the Cossacks. It was a case of "great results from little causes spring." He continued to acquire concessions until his death, and then his widow interested herself in the same work. Two years ago the widow commenced boring operations upon the concessions, and, though the boring had only a diameter of four inches, a flowing well was brought in. But her limited means did not allow her to continue boring operations, and so her concessions were eventually acquired by an English syndicate—the Black Sea Oilfields, Ltd.—and they in their turn also encountered a spouting well, while a Russian syndicate operating upon a claim near by, brought in that famous well which threw out 30,000 tons of oil in a few days. There was a strain of sympathy in regard to another pioneer of Maikop—Peter Prokofieff, once a sailor, but who, after his vessel was wrecked, went in 1878 to live in Schirvansky, in the Maikop district. Here he found evidence of petroleum on every hand. He leased the hand-dug wells in the village for £25 per year, and upon two plots numbered 490 and 514 upon the Maikop

Trial Boring on Plot 318.

official plan he bored to a depth of 240 feet. Then he built a small refinery in order to carry on refining operations, and things went well for a time. Then in 1888 the Russian Government introduced the excise duty upon refined petroleum, and finding that control of such an out-of-the way refinery would be difficult for their officers, they resolved to burn down the refinery. The old pioneer—Prokofieff—took the decision so much to heart that he went blind, living to this day in Schirvansky village.

Another pioneer of Maikop was Mr. Vladimir Winda, the geologist, who had spent many months in investigating the Maikop region, and in the several publications he had issued upon the subject had shewn that he was strongly of the belief that there was an abundance of petroleum in Maikop.

Proceeding to refer to the claims of Maikop upon the English investor, Dr. Dvorkovitz said that remarkable sums had lately been made out of Maikop oil shares in this country in pure speculation, so much so that there were many who became interested when speculation in shares was at its height, were wondering whether they would in the long run be losers. His own opinion was that they would all come out "on top." After all, what was the evidence as to the petroliferous value of Maikop? So far, every substantial well which had been drilled had been self flowing, and that in itself was sufficient to prove the prolific nature of the territory. So far, that spouter production had been very great, but it would have been materially greater had not there been a dearth of transport and storage facilities. English capital was to play a very important part in regard to the development of Maikop, but that step he believed was thoroughly justified. To his regret, the English investing class had not taken that interest in the oil fields of the world which the capitalists of other countries had. In fact, he believed that English capital in oil enterprises did not represent more than one per cent. of the financial interest in oil, and thus England's share was infinitesimal.



Mr. Peter Prokofieff, one of the Maikop Pioneers.

This was to be regretted all the more since there was no branch of the mining industry from which greater profits had been made. The enormous profits which had accrued from the operations of the Standard Oil Co. found parallel in the success of other smaller oil companies, and the fact that the more important Californian oil enterprises had during the past four years paid out $40,000,000 in profits shewed that the mining of petroleum was highly remunerative.

In conclusion, Dr. Dvorkovitz maintained that there were at least something like 12,000 producing oil companies in the world, and the vast majority of these could boast of a success which would be envied by many concerns in other branches of industry. He had every reason to believe that as time went on, the English investor would look with a more kindly eye upon petroleum enterprises, and so encourage the exploitation of the enormous wealth of oil which was stored up in almost every corner of the earth.

Mr. Suart, in proposing a hearty vote of thanks to Dr. Dvorkovitz for his interesting lecture, said that by the persistent efforts of the Doctor, the Russian oil trade in this country had been brought to the front. In fact, a few years ago Russian oil on this market was equal to the trade in American Now, however, they had Maikop, and there was no doubt that the great advantages which that new field possessed would be such as would give its products a good place in the trade of this country.

In acknowledging the vote of thanks, Dr. Dvorkovitz said that when he first came to this country thirty years ago, Mr. Suart was the first Eglishman he met, and it was a pleasure to him that evening to find Mr. Suart present. Without doubt, Mr. Suart was a pioneer in connection with the Russian oil trade of this country, for he had been the first to bring its illuminating oil to England. He desired to thank the many City gentlemen who had attended and hoped the lecture had proved interesting.

LEGAL COMPLICATIONS OVER OIL-BEARING LAND IN TEXAS.

An interesting situation has been created in the exploitation of the Toyah oil field in Western Texas with regard to the legal rights of the State in the matter of holding from the market public land which is believed to be oil-bearing. It is claimed by several gentlemen who are seeking to acquire mineral rights upon certain lands in that field that the State Land Commissioner has arbitarily refused their applications to prospect for oil upon the ground that "there is no evidence that the land is apparently oil-bearing." It is contended that the Commissioner is exceeding his duty in refusing their application for prospecting as the mining law does not provide that such land must be officially classified as mineral bearing before it is subject to entry for exploiting purposes.

PETROLEUM IMPORTS INTO THE UNITED KINGDOM DURING MAY.

THE SHIPMENTS INTO VARIOUS PORTS.

The shipments of petroleum products during May into the various ports of the United Kingdom is given in the following table. The total imports for the month amounted to 31,158,060 gallons—a figure well above the monthly average.

The details are as under:—

Port.	Illuminating.	Lubricating.	Residuals.	Gas Oil. (Solar.)	Benzine.	Fuel Oil.	Other Descriptions.
Aberdeen	2,050	1,110	—	—	—	—	—
Barrow	—	—	—	—	1,856,720	—	—
Belfast	—	280	—	—	—	—	—
Bristol	2,795,740	104,560	—	548,570	—	—	196,910
Cardiff	—	130	—	—	—	—	—
Cork	—	520	—	—	—	—	—
Dublin	768,120	950	—	—	—	—	—
Dundee	400	5,800	—	—	—	—	—
Glasgow	—	353,960	—	—	—	—	—
Goole	—	1,080	—	—	—	—	—
Grangemouth	12,000	8,050	—	—	—	—	—
Granton	—	—	—	—	427,800	—	—
Grimsby	—	3,420	—	—	—	—	—
Harwich	—	1,020	—	—	—	—	—
Hartlepool	840	800	—	—	—	—	—
Hull	944,000	252,380	—	—	—	—	—
Leith	13,080	50,910	—	—	—	—	—
Liverpool	494,280	1,691,340	—	—	50,000	4,000	17,310
London	6,545,500	1,705,580	—	4,423,310	3,242,360	463,600	16,400
Manchester	—	1,031,090	—	1,231,140	—	—	33,640
Middlesboro'	—	2,080	—	—	—	—	—
Newcastle	2,000	3,120	—	—	—	—	—
Plymouth	—	—	440,000	—	—	—	—
Southampton	—	82,150	—	—	—	—	—
Sunderland	1,322,000	—	—	—	—	—	—
Swansea	—	5,960	—	—	—	—	—
Totals	12,900,010	5,306,290	440,000	6,203,020	5,576,880	467,600	264,260

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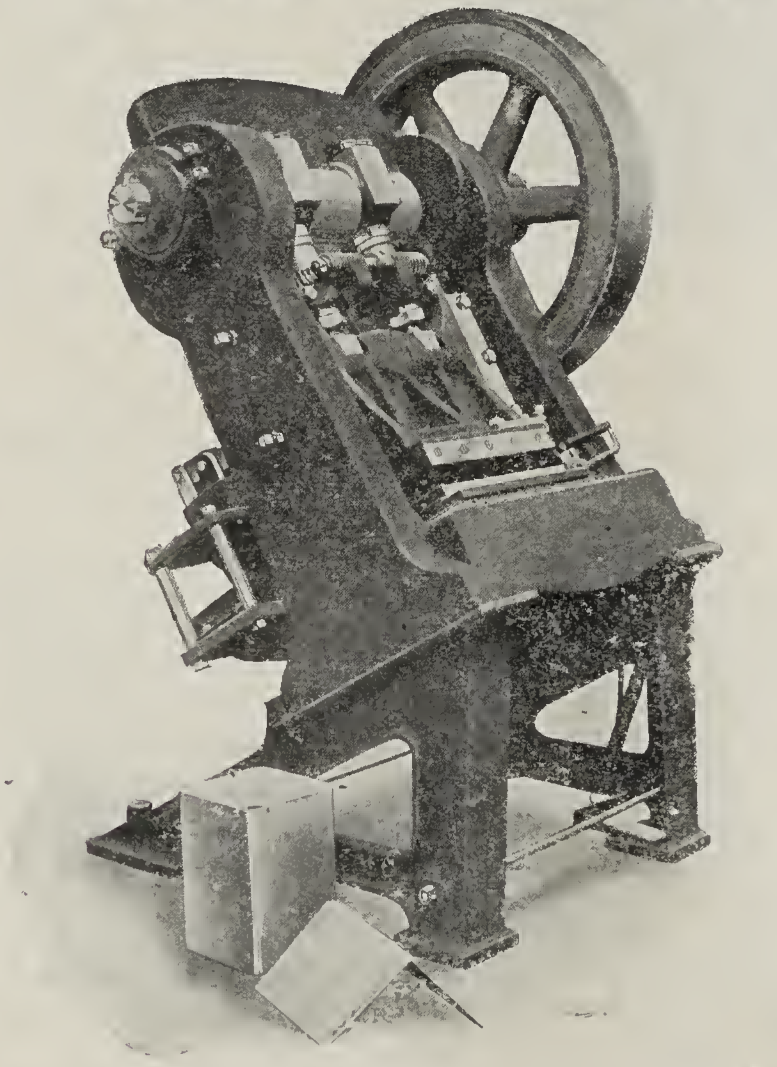

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THE OIL SHALE DEPOSITS OF CANADA.

— By —
Dr. R. W. ELLS,
LL.D., F.R.S.C.

DISTRIBUTION OF ALBERT SHALES.

(Concluded from page 338.)

The oil shales of Nova Scotia differ in some respects from those seen in New Brunswick. There is a lack of the brown bituminous shales and thick hard oil bands already described as occurring in New Brunswick, though in age many of those in the adjoining province appear to be on the same general horizon. In Nova Scotia, the shales are more usually black in colour, containing also bands of blackish material which are rich in hydrocarbons, the black shale deposits being in places of great thickness.

Among these areas may be mentioned a basin of shales with thin coals, found a few miles north of Antigonish town, which has been opened to some extent in the search for workable seams of coal. These coals have been regularly examined by the Department of Mines, and found to be too impure to make a good fuel. According to the report of Mr. H. Fletcher (G.S.C., 1886), no seams of workable coal appear yet to have been found in the peninsula north of Antigonish, the black shales there exposed being in some cases mistaken for coals into which they pass at several points; but from many of these openings no trace of good coal has yet been obtained.

Mr. Campbell, in "How's Mineralogy of Nova Scotia, 1868, has clearly shewn that these oil coals underlie the lower carboniferous limestone at Big Marsh. He divides them into two groups, the lower 70 to 80 feet in thickness, including 20 feet of good oil shale, 5 feet of which are curly cannel, rich in oil; the upper, 150 feet thick, in immediate contact with the limestone and containing a large percentage of oil. Of the 5 feet seam of curly cannel, he states that, "it will yield at least 40 gallons of crude per ton, and 15 feet of the remainder will yield at least 20 gallons."

The black shales are associated with light grey micaceous shales, with impressions of broken plants, and are in places much faulted and sometimes steeply inclined.

In Cape Breton, around Lake Ainslie, where borings for coal have been carried on for many years, the beds of black shale are not visible to any large extent, much of the surface being drift-covered. Greenish and dark grey ripple-marked sandstone and shale are seen in which the borings have been carried on in former years, and in one of the holes put down near the shore of the lake, brackish water, with a strong taste of petroleum oozes out. The rocks at this place are greenish-grey sandstone, and dark grey shale. The remarks ol Mr. Fletcher, who has studied this district very carefully, shew that in places, while these sandstones are seen, other beds of grey, green, rusty, red and purple argillaceous shale dip north-west at a high angle, with sometimes thin greyish, slightly bituminous, shaly limestone.

The grey sandy beds and shales may represent that portion of the Perry Devonian seen in New Brunswick on Kennebecasis island, which is apparently the non-bituminous extension westward of the bituminous shales of Albert county.

Dr. I. C. White, of Morgantown, West Virginia, made an examination of the Lake Ainslie district some years ago, and after a careful study of the whole area, and of the several borings made, expressed the conviction that in this part of the island there is no geological evidence of the existence of petroleum in quantities large enough to make it commercially valuable. On the contrary, he says all the geological evidence goes to negative the supposition.

On the west side of McAdam lake, situated a short distance north of East bay, Bras d'Or lake, black and grey shales are exposed near the west shore. Some twenty years ago a shaft was sunk by American capitalists in a belt of the black shale, to a depth of 65 feet, which was subsequently carried down to a reported depth of 175 feet. A small retort was erected, but apparently was operated only a short time, the material on the dump shewing black and dark grey carbonaceous shales, with crushed and slickensided surfaces, portions of which were graphitized. No information could be obtained during a recent visit to the locality as to the results of the working. The place has long since been abandoned. Some portions of the black shales on a small brook which crosses the property were reported to burn readily, but the rocks generally are much crushed in the vicinity.

At Cheverie, near the mouth of the Avon river, in Hants county, where boring for oil has been carried on for some years, Mr. Fletcher reports that oil and bitumen have been found in cavities, joints, and fissures. in a mass of gypsum largely quarried in the neighbourhood, which overlies a great body of black carbonaceous shale, containing numerous remains of plants and animals (Vol. XV., p. 393, G.S.C.), and thus "supplying the materials for the supposed source from which petroleum was originated." Along the shore thence east to Walton large bodies of these black shales are exposed, but so far as examined, appear to be carbonaceous rather than bituminous. In the vicinity of Walton they are overlaid by red beds of triassic age, They are much folded and faulted, shewing anticlinal structures at various points. No oil has yet been found in any of the boreholes, but the rocks, resemble in many respects those at Antigonish. Similar black shales occur in the North river near Truro, in large volume, overlain by green and grey jointed sandstone; but no attempt to ascertain the presence or amount of hydrocarbons has yet been made.

These shales of Cheverie and other points closely resemble the rocks seen along the west side of the Avon river between Hantsport and Horton Bluff, where they have long been known under the name of the Horton series. They consist of heavy beds of black shales, with fish and plant remains, and have been regarded as the equivalent in position of the Albert shales of New Brunswick. They occur in basin shape and shew the presence of faults. In a boring made near the line between Hants and Kings counties, the rocks penetrated to a depth of 1,500 feet were light and dark grey fine sandstone, underlaid by bluish grey coherent argillaceous shale, with plant stems and bands of ironstone, to a depth of 800 feet, below which grey sandstone again comes in. Some of the shales are said to have the characteristic strong odour of petroleum.

Regarding the shales at this part of the Avon, Mr. Fletcher remarks (Vol. VII., p 90a), "the lower plant-bearing beds occur between the gold-bearing series and the lower carboniferous limestone. They consist of whitish grey and rusty, fine and coarse quartzose grits, coherent or loose in texture, interstratified with thick bands of blackish shining bituminous shale, like those of Hallowell Grant, Antigonish county and East bay, Cape Breton, some of which will burn and have been used for coal, while others, full of rootlets, constitute true underclays."

Among the most important of the oil shales in Nova Scotia are those found in the Pictou coal basin. These have been known for fifty years, and shortly after their discovery in 1859 were mined for material for distillation. They are better known under the name of stellarite, and may be described in some detail, because of their possible use as a source of oil.

Oil shales occur at several points in the Pictou basin, as at Stellarton, McLellan brook, on Marsh brook—a branch of the latter, Shale brook, on the shore of Deacon cove, and near the mouth of Smelt brook.

GROSNY PETROLEUM PRODUCTION DURING MARCH.

The total production at the Grosny oil fields during March amounted to 7,258,322 poods, out of which 5,927,092 poods were produced by baling and 1,331,230 poods by spouters. The number of wells in exploitation amounted to 186 and the number of wells in boring to 57, in which 8,267 feet were bored. The production of the various firms was as under:—

	Production. Poods	Wells in Exploitation	Wells in Boring	Number of Feet Bored
Akhverdoff Co. ..	1,653,400 ..	53 ..	16 ..	[illegible]
Kasbeck Syndicate ..	1,562,630 ..	15 ..	9 ..	[illegible]
Spies Co.	1,347,945 ..	45 ..	11 ..	[illegible]
Russian Standard ..	452,970 ..	12 ..	3 ..	[illegible]
Maximoff's Trustees ..	404,800 ..	6 ..	6 ..	[illegible]
Anglo-Russian Maximoff Co.	194,300 ..	15 ..	2 ..	[illegible]
Tcheleken - Daghestan Co.	118,360 ..	14 ..	2 ..	[illegible]
North - Caucasian Petroleum Co. ..	60,600 ..	6 ..	3 ..	[illegible]
McGarvey	33,402 ..	1 ..	— ..	—
Caspian Black Sea Co.	30,525 ..	2 ..	— ..	—
St Petersburg Co. ..	16,100 ..	10 ..	1 ..	[illegible]
Moscow Petroleum Co.	12,650 ..	3 ..	— ..	—
Kasmin and Berman ..	400 ..	1 ..	— ..	—

The 1,331,230 poods of spouted oil were obtained by the following firms:—Akhverdoff Co., 1,700 poods; Kasbeck Syndicate, 1,129,530 poods; and Russian Standard, 200,000 poods.

THE "SHELL" TRANSPORT AND TRADING COMPANY, LIMITED.

ANOTHER SUCCESSFUL REPORT.

The annual report of the directors of the "Shell" Transport and Trading Co., Ltd., for the year ended December last, shews that including the balance, £192,941 13s. 4d., brought forward from 1908, there is a credit to the profit and loss account of £806,930 5s. 8d.

Deducting management, legal and other expenses (£8,562 2s. 11d.), there remains £798,368 2s. 9d. to be carried to the balance sheet.

From this amount, preference dividends (absorbing £50,000) and interim dividends (absorbing £230,000) have already been paid.

After payment of the dividends distributed, there remains a balance of £518,368 2s. 9d., from which your directors recommend that a further and final dividend for the year 1909 of 2s. 6d. per share be paid on the 5th proximo (making 22½ per cent. for the year), leaving a sum of £205,868 2s. 9d. to be carried forward to the current year.

The payment of the final dividend involves a charge of £25,000 on the revenue of the company in excess of that paid last year, the dividend being payable on £2,500,000 instead of £2,300,000.

The dividend is paid free of income tax, which is charged at the rate of 1s. 2d. in the £.

Depreciation again having been amply provided by the Bataafsche Petroleum Maatschappij and the Anglo-Saxon Petroleum Co., Ltd., your directors do not deem it necessary to appropriate out of the year's profits any sum to reserve.

The entire costs of drilling and of geological surveys have been charged to working expenses.

In accordance with the announcement of the directors on the 16th November last, 200,000 ordinary shares of £1 each were offered to the shareholders at the price of £2 10s. per share, and the whole number of shares were applied for. The premium arising from this issue has been placed, as to £280,000 to reserve account, bringing this to £1,000,000 and £20,000 to reserve fund, increasing this to £120,000.

The very large sum shewn on loan, current and deposit accounts arose from the fact that the new capital was only received at the end of the year, and had not been appropriated at that time for the purposes for which it was intended, and necessarily contributed very little to the profits of the year 1909.

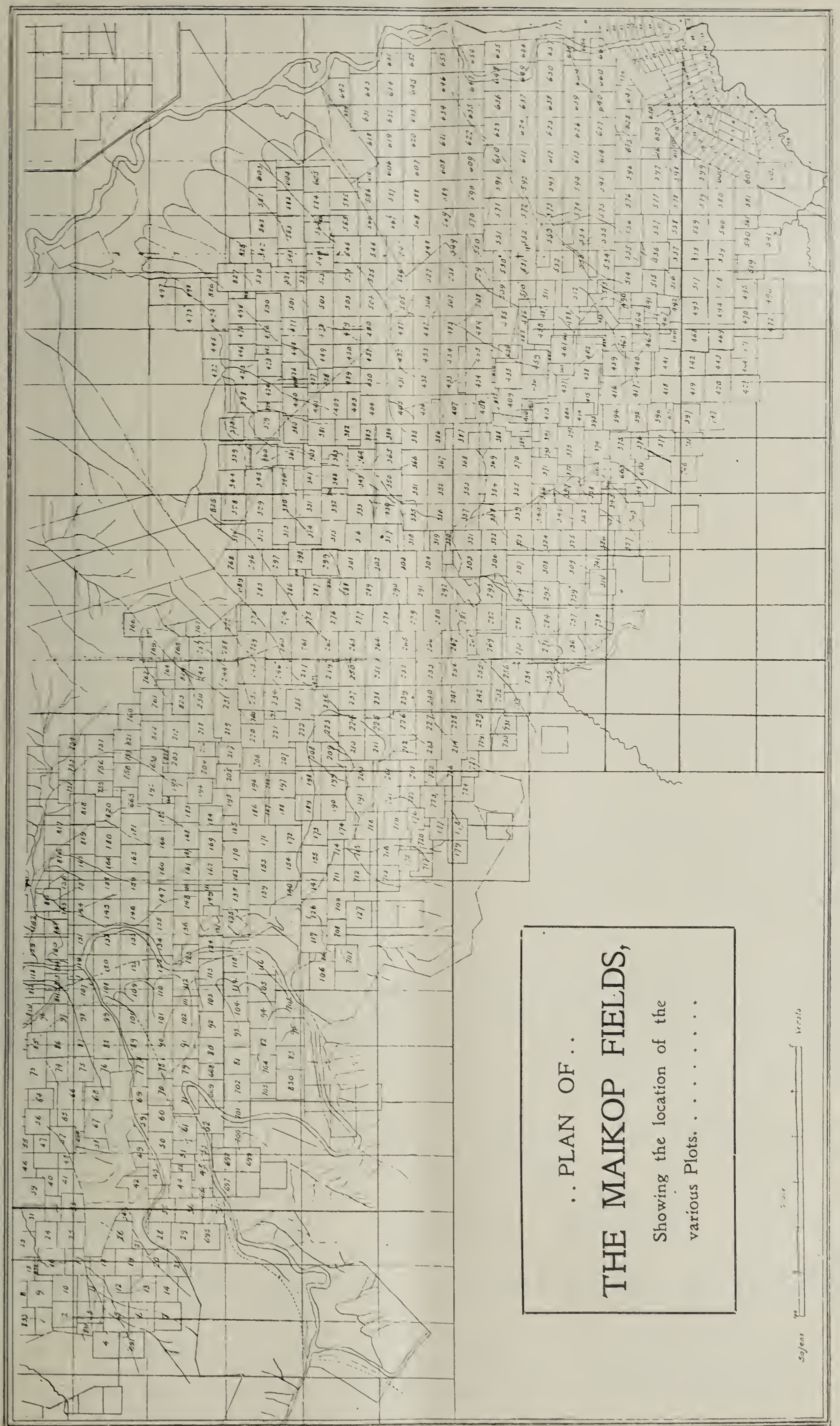
Reports received from the Anglo-Saxon Petroleum Co., Ltd., and the Bataafsche Petroleum Maatschappij justify the payment on account of this year of an interim dividend of one shilling per share (i.e., at the rate of 20 per cent. per annum), which will also be made on the 5th proximo.

The representation of the company on the boards of the Anglo-Saxon Petroleum Co., Ltd., and the Bataafsche Petroleum Maatschappij remains unaltered.

The directors record with deep regret the death, in March, of their valued colleague, Mr. Philip Arnhold.

The directors retiring in rotation are Messrs. H. W. A. Deterding, Samuel Samuel, W. F. Mitchell and A. Richmers.

Messrs. Deterding, Samuel and Mitchell, being eligible, offer themselves for re-election.



..PLAN OF..

THE MAIKOP FIELDS,

Showing the location of the various Plots. . . . .

NEW ENGLISH PETROLEUM COMPANIES.

NORTHERN MAIKOP PETROLEUM COMPANY.

This company was registered on June 10th with a capital of £50,500, divided into 50,000 £1 and 10,000 1s. deferred. The objects of the company are to acquire any petroleum, asphalte, napthaline, or oil-bearing lands in Russia or elsewhere, and to adopt an agreement with the Oil Promotions, Ltd. Minimum subscription, seven shares. First directors (not less than three nor more than seven) to be appointed by signatories. £250. £250 each per annum (chairman, £350) and 5 per cent. of surplus net profits remaining after 10 per cent. dividend is paid, divisible. The company's registered office is at No. 1, Broad Street Place, E.C.

TRINIDAD UNITED OILFIELDS.

With a capital of £250,000 in £1 shares this company was registered on June 10th, with the object of acquiring oil properties in Trinidad. The directors (not less than two nor more than seven) to be appointed by signatories. £100. £150 each per annum (£50 extra for chairman) and a percentage of profits.

BATTRUM OIL AND REFINERY COMPANY.

Registered on June 10th, with a capital of £120,000, in £1 shares. To acquire an oil-bearing property known as the Battrum Ranch, Freemont, Wyoming (U.S.A.), and to adopt an agreement with the Bassum Oil Syndicate, Ltd. First directors (not less than two nor more than five): C. Perkins, J. F. W. Lennard, and J. A. Kellaway, £100. £150 each per annum (chairman £250) and 5 per cent. of the profits available for distribution after 10 per cent. dividend is paid, divisible. The offices of the company are at 4, London Wall, E.C.

CONTINENTAL OIL CONCESSIONS, LIMITED.

Registered June 3rd, by C. R. Enever, Broad Street House, E.C. Capital, £6,600, in 1,200 "A" shares of £5 each and 12,000 "B" shares of 1s. each. Objects: To acquire and turn to account any petroleum or oil-bearing lands in Russia or elsewhere, etc., and to adopt an agreement with A. Raky. Minimum cash subscription, £500. The first directors (to number not less than two nor more than five) are to be appointed by the signatories. Qualification, one share. Remuneration, £100 each per annum (chairman £150) and a percentage of the profits in any year, after paying 100 per cent., on the "A" shares. Registered office, 246, Winchester House, Old Broad Street, E.C.

ISTHMIAN OIL COMPANY, LIMITED.

Registered June 4th, by Hatchett-Jones and Co., 48, Marsh Lane, E.C. Capital, £5,000, in £1 shares. Objects: To carry on the business indicated by the title and that of promoters, financiers, merchants, etc. Private company. The first directors (to number not less than two nor more than seven) are to be appointed by the signatories. Remuneration, £50 each per annum and £50 extra for the chairman.

MAIKOP OIL WELLS SUPPLY COMPANY.

Registered on June 10th, with a capital of £105,000 (100,000 £1 ordinary and 100,000 1s. deferred). The objects of the company are to carry on the business of importers, exporters, and suppliers of and dealers in all kinds of plant, tools, drills, machinery, stores, building materials, and equipment on the oil fields of Russia and elsewhere, and to adopt an agreement with the Phœnix Investment Trust and Dr. Paul Dvorkovitz. First directors (not less than two nor more than seven) to be appointed by signatories. Remuneration as fixed by the company. The offices of the Company are at 1, Broad Street Place, E.C.

MAIKOP-TAMAN OIL COMPANY, LIMITED.

Registered June 8th, by Greenwood and Greenwood, 1, Mitre Court Buildings, Temple, E.C. Capital, £175,000, in £1 shares. Objects: To carry on the business of petroleum, naphtha and oil refiners and merchants, miners, prospectors, explorers, concessionnaires, etc., and to adopt an agreement with the London and Colonial Syndicate, Ltd. The first directors (to number not less than two nor more than seven) are to be appointed by the signatories. Qualification, 100 shares. Remuneration, £100 each per annum (chairman £150) and 5 per cent. of the profits remaining after 10 per cent. dividend is paid, divisible. Registered office, Throgmorton House, Copthall Avenue, E.C.

MAIKOP MOSCOW OIL COMPANY, LIMITED.

Registered on June 1st with a capital of £225,000, divided into £1 shares. The objects of the company are to acquire oil, naphtha, naphtha products and petroleum refiners, miners, dealers in mineral oils, etc., to acquire oil, petroleum and mineral bearing lands and claims, and options over oil and petroleum producing and mineral properties in the Russian empire and elsewhere, and to adopt an agreement with the Colonial & General Agency, Ld. Minimum cash subscription, £100. First directors (to number not less than two nor more than seven) are to be appointed by the signatories. Qualification, 100 ordinary shares. Remuneration, £200 each per annum (Chairman, £250), and such sum not exceeding £2,000, as shall be equivalent to 5 per cent. of the surplus profits available for dividend after 10 per cent. dividend is paid, divisible.

CLASSIFIED IMPORTS INTO UNITED KINGDOM UP TO JUNE 13th, 1910.

IN GALLONS.

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Country.	Illuminating.		Lubricating.		Residuals.		Gas Oil. (Solar)		Benzine.		Fuel Oil.		Other Descriptions.		Totals.	
	Since May 30.	From Jan. 1.	Since May 30.	From Jan. 1.	Since May 30.	From Jan. 1.	Since May 30.	From Jan. 1.	Since May 30.	From Jan. 1.	Since May 30.	From Jan. 1.	Since May 30.	From Jan. 1.	Since May 30.	From Jan. 1.
Austria ...	—	—	16,120	76,020	—	—	—	—	—	—	—	—	—	—	16,120	76,020
Belgium ...	—	820	23,520	228,630	—	—	—	—	—	—	—	—	1,250	3,710	24,770	233,160
Canada ...	—	—	51,790	15,790	—	—	—	—	—	—	—	—	—	—	15,790	15,790
Dutch India.	—	—	—	—	—	—	—	—	—	7,849,010	—	—	—	2,730	—	7,851,740
Germany ...	25,820	439,490	71,910	747,750	—	2,000	—	—	—	—	—	4,840	—	3,400	97,730	1,197 480
Holland ...	—	610	—	2,070	—	—	—	—	—	952,950	—	—	—	113,710	—	1,069,340
Roumania ...	886,000	7,757,400	—	659,560	—	134,750	723,000	723,290	—	1,378.770	1,010,830	1,010,960	—	—	2.619,830	11,664 730
Russia ...	1,883,000	6,443,630	919,080	4,333,990	—	117,120	—	—	—	700,820	—	—	—	240	2,802,080	11,595,800
U.S.A. ...	8,814,040	48,593,310	1,222,850	19,507,300	—	55,810	3,326,570	27,137,180	—	11,024,260	—	3,623,180	13,410	439,250	13,376,870	110,380,290
Other Countries	—	1,991,600	2,630	23,640	—	—	—	—	—	412,160	—	1,780	—	1,600	2,630	2,430,780
	11,607,860	65,225,860	2,271,900	25,594,750	—	309,680	4,049,570	27,860,470	—	22,317,970	1,010,830	4,640,760	14,660	564,640	18,955,820	146,515,130

THE BATOUM PETROLEUM TRADE DURING MARCH.

The following table shews the amount of petroleum products imported into, exported from, and stored at Batoum during March (in poods):—

	Imports.	Exports.	In store on April 1st (o.s.)
Illuminating oil ..	680,000	572,000	1,395,000
Lubricating oil.. ..	978,000	1,437,000	1,421,000
Residuals	347,000	350,000	229,000
Other products.. ..	69,000	3,000	1,000
Total	2,074,000	2,362,000	3,303,000

The 572,000 poods of exported illuminating oil were all case oil. Not a single cargo of kerosene in bulk was exported to any foreign or home port. Thus March proved especially inactive in regard to exports in bulk of illuminating oil, and even in April there was only one cargo of 259,000 poods exported to England.

Of the other 1,790,000 poods of exported products 462,000 poods went to France, 374,000 poods to Germany, 528,000 poods to Belgium, and 137,000 poods to Italy.

◆

THE INDIAN PETROLEUM MARKET.

(*Crowded out of page* 373.)

BOMBAY, May 20th.

The petroleum market is firm. The following are the current prices of the Standard Oil Co. of New York:

		Rs.	a.	p.
Snowflake Brand, 150 deg., American	(per case)	6	8	2
White Rose, 150 deg. ,,	,,	6	8	2
Chester Brand, 76 deg. Abel	,,	5	0	2
Devoe's Brilliant	,,	4	12	2
Monkey Brand, 76 deg. Abel	,,	4	8	2
Elephant Brand, 125 deg. (bulk in tins)	(per 2 tins)	4	3	0
Elephant Brand, 125 deg. (bulk without tins) (per 8 Imperial gallons)		3	9	0

The following are the current prices of the Asiatic Petroleum Co., Ltd.:—

		Rs.	a.	p.
Swan Brand, bulk loose..	(per unit)	2	14	0
Swan Brand, new tins	(per pair)	3	9	0
Ship Brand, bulk loose	(per unit)	3	9	0
Ship Brand, new tins	(per pair)	4	3	0
Rising Sun Brand, bulk loose	,,	3	10	0
Rising Sun Brand, new tins	,,	4	4	0
Anchor Cases	(per case)	4	3	0
Silver Light 150 deg. cases, ...	(per case)	5	0	0

The prices of the Burma Oil Co.'s productions are as under:—

		Rs.	a.	p.
Kerosene, Victoria	(per 2 tins)	3	8	0
Kerosene, Victoria	(per 8 gallons)	2	14	0
Kerosene, Chukker	(per 2 tins)	4	0	0
Kerosene, Chukker	(per 8 gallons)	3	6	0
Burmah Wax	per pound)	0	4	0
Burmah Candles	,,	0	4	6

THE CONSUMPTION OF LIQUID FUEL BY THE ROUMANIAN RAILWAYS.

A publication of the administration of the Roumanian railways on the working of railways in 1908-9 gives the following very interesting facts as to the use of liquid fuel on Roumanian railways.

On the 31st of March, 1909, out of the 648 railway engines in the possession of the railway administration 549 were provided with apparatus for liquid fuel firing and only 99 were using wood and coal. Thus only 15·3 per cent., or about one-seventh of all the engines are as yet still burning wood or coal. During the present year 80 more engines are to be provided with apparatus for the burning of liquid fuel. The following table clearly shews the development of liquid fuel on the Roumanian railways:—

Year.	Number of engines with liquid fuel firing.	Tons of liquid fuel used.	Value of liquid fuel. Francs.	Value of wood and coal used. Francs.
1888	5	742	21,154	1,386,899
1896	6	2,976	63,794	777,243
1897	17	4,115	98,855	824,823
1898	76	8,678	203,945	1,309,278
1899	175	21,566	522,342	1,316,569
1900-1	291	27,818	641,212	1,792,890
1901-2	341	36,059	817,457	1,787,413
1902-3	373	52,054	1,189,962	1,232,300
1904-5	378	57,421	1,283,938	2,372,733
1905-6	410	88,848	2,132,568	2,272,575
1906-7	472	134,756	3,042,883	2,180,659
1907-8	531	194,286	4,438,117	1,386,337
1908-9	549	179,966	4,191,003	1,951,292

The above figures speak for themselves. They shew that liquid fuel, which in 1888 played quite an insignificant role in regard to the Roumanian railways, forming but 1½ per cent. of the total expenditure for fuel, in 1908-9 formed no less than 62·2 per cent.; of the remaining 37·8 per cent. coal takes 23·7 per cent., and wood 14·1 per cent.

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RUSSIAN NOTES.

The Surakhany Spouter.—This spouter again shews great activity, yielding about 20,000 poods a day. The total quantity of oil spouted up to the present time exceeds 6,000,000 poods.

A Gas Spouter at Surakhany.—On the 25th of May, on the property of the Caspian Black Sea Co. at Surakhany, an extremely active gas spouter broke out from a depth of 2,000 feet in well No. 7.

Grosny Production for the First Three Months.—Grosny production for the first quarter of the year amounted to 14,932,910 poods, as against 12,500,000 produced during the corresponding period of last year, shewing an increase of nearly 20 per cent

Acquisition of Petroliferous Properties by Railways.—Early this year some of the railway administrations urged the Ministry to grant them permission to acquire and exploit petroleum properties. This demand is now granted by the Ministry and thus the Russian railways may have in the near future their own oil for their engines.

Tcheleken Spouters.—According to latest news the spouter from well No. 5 on Gadjinski's property shews extraordinary activity. On the 20th of last month well No. 3 also started spouting. On the 12th of May a spouter broke out from well No. 102 on Messrs. Nobel's property at Kara-Kin, yielding in a short time about 40,000 poods of petroleum.

Activity in Southern Russia.—There is no sign of decrease in connection with the securing of plots in and around the Maikop field; in fact, it has spread into the villages of Akhtanizoff and Fontanovskaja. News now reaches us of a discovery of petroleum in the village of Spokoinaja. Great activity prevails at Tuapse lately, boring instruments and engines are seen everywhere on the wharf.

AMERICAN NOTES.

Re-Hearing Disallowed.—The United States Circuit Court of Appeal has refused the petition of the Standard Oil Co. for a re-hearing of the appeal in the Government's suit.

New Interest in Ohio.—Considerable interest has now been aroused in a section of Wood county, Ohio, by the discovery of commercial quantities of oil in territory which has previously been looked upon as being quite outside the oil belt.

Another Gusher in California.—What gives every promise of being a second Lakeview gusher has been recently struck in the Sunset-Midway fields of California. The well was brought in at a depth of 2,700 feet, and is reported to be holding up at the rate of 20,000 barrels daily The new gusher is located about ten miles due north-west of the Lakeview well, several other gushers standing between the two.

Californian Statistics.—The total number of producing wells in the Californian fields during April was 4,249, and they produced 6,580,000 barrels. During the month the Coalinga field was ahead of all others in regard to production. There are now about 700 wells being drilled in the fields.

Activity in West Virginia.—Many extensions of old producing territory are now being made in nearly every section of the State, and wells far above the average producers have been recently brought in. The Roane and Ritchie counties are very favoured spots at the present time.

The Lakeview Gusher.—This now famous Californian gusher, which has already given out over 3,000,000 barrels of oil, is reported to now have a daily production of over 40,000 barrels. The major part of its production has been saved and an average of over 30,000 barrels is going to the Producers' Transportation Co.

Mexican Activity.—We learn that never has there been such activity in regard to petroleum exploration in Mexico as is to be seen at the present time. Practically all the territory within a distance of 150 miles of Tampico has passed into the hands of companies who are commencing to operate with all possible speed.

Californian Production and Consumption.—In spite of the increased demand for Californian oil products, the daily production is in excess of requirements, and for some weeks past considerable quantities have been going to swell the already large amount in storage. The daily output may be taken at about 210,000 barrels, and the consumption is about 180,000 barrels.

ROUMANIAN NOTES.

Prices and Production.—The crude oil price remains unchanged, the Bustenari crude realising 3·40 francs per 100 kilos. The export trade still remains very active, while the production at the fields is still increasing.

Export Statistics.—The statistics for the export trade during April shew that the total quantity exported amounted to 52,795 tons, or an increase of 25,041 tons over the quantity shipped abroad during the corresponding month of 1909. France was the largest buyer, taking 14,480 tons.

Personal.—Mr. Alfred Stead, the Roumanian Consul in London, Mr. Thomas Wilson of London, and also Mr. M. I. S. Marshall are at present in Roumania. The two first-named gentlemen are members of the board of the Roumanian Oilfields Co., Ltd,, and Mr. Marshall is associated with the British-Roumanian Oil Co., Ltd.

Refinery Statistics.—The latest issue of the *Moniteur du Petrole Roumain* gives details of the output of petroleum products from the Roumanian refineries during the first quarter of the present year. The total output for the three months was 291,842 tons, as against a total of 239,054 tons for the corresponding period of 1909 and 250,819 tons for January-March, 1908. The output of benzine has of late been greatly increased.

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LATEST QUOTATIONS OF PETROLEUM SHARES.

ENGLISH COMPANIES.

This list is restricted to companies who have paid dividends or who are producers.

Company.	Capital Paid Up.	Value of Shares.	Latest Prices.
Assam Oil	£310,000	£1	9/16-11/16
Bibi-Eybat Petroleum Co. ..	£380,000	£1	4/0-5/0
Californian Oilfields	£400,000	£1	5⅛-5⅜
Commonwealth Oil Co. ..	£500,000 Pref.	£1	⅝-¾
,, ,, ..	£225,000 Def.	£1	⅝-¾
Lobitos Oilfields, Ltd. (£1) ..	£360,000	£1	27/6-28/6
Pacific Oilfields, Ltd. (£1) ..	£200,000	£1	19/0-20/0
Russian Pet. & Liquid Fuel ..	£500,000 6½% Pref.	£1	1/0-1/6
,, ,, ...	£600,000 Ord.	£1	1/3-1/9
Schibaieff Petroleum ..	£575,000 6% Pref.	£5	8/0-9/0
,, ,, ...	£575,000 Or.l.	£1	1/3-2/3
Shell Transport & Trading ..	£2,300,000	£1	91/6-92/6
,, ,, ,, ..	£1,000,000 Pref.	£10	11¼-11¾
Spies Petroleum Company ..	£465,000	10s.	21/0-22/0

RUSSIAN COMPANIES.

Company.	Nom. Value in Roubles.	Latest Quotations.	
		Lowest Roubles.	Highest Roubles.
Baku Naphtha Co.	100	270	273
,, ,, ,, (issue of 1908) fully pd.	100	327	328
Balakhany Naphtha Co.	250	—	—
Caspian Society	1,000	4,325	4,350
Mazout Co.	250	—	—
Melikoff, A. C.	250	—	—
Mirzoeff Bros.	250	—	—
Naftalan Co.	250	—	—
Naphtha Co. "Kavkas"	250	—	50
Naphtha Trading Co., A. I. Mantacheff & Co.	250	115	118
Neft Co.	250	260	—
Nobel Bros.	5,000	10,650	10,750
,, ,, ...	250	—	598
Rops and Co. V...	250	315	316
Russian Naphtha Co.	250	—	—
Society Mazout	250	—	400
Ter-Akopoff Co.	250	—	—
Tumaieff & Co., J. G.	250	96	—
Volga-Caspian Naphtha and Trading Co	250	—	—
,, ,, ,, (Second Issue)	250	—	—

SCOTCH COMPANIES

Supplied by Messrs. Maclean and Henderson, Stirling.

Company.	Capital Paid Up.	Value of Share.	Latest Prices.
Anglo-Persian Oil Co., Ltd., 6% Part Pref. (10s. paid)	£150,000	£1	11s. 3d.
Do. 5% Deb. Stock	£600,000	£100	£96 7s. 0d.
Broxburn Oil Co., Ltd., Ord. 17/- pd	£235,000	£1	£1 14s. 0d.
Do. 6% Cum. Pref. ..	£100,000	£10	£11 13s. 9d.
Burmah Oil, Ord.	£1,100,000	£1	£5 17s. 6d.
Do. Pref.	£250,000	£1	£1 7s. 6d.
Dalmeny Oil Co., Ord. (7 paid) ..	£37,800	£8 10s	£5 2s. 6d.
Do. 5% Pref. ..	£18,900	£7	£4 10s. 0d
Oakbank Oil Co., Ltd., Ord.	£170,000	£1	£1 14s. 6d.
Do. Pref. (£1 paid)	£100,000	£1	£1 3s. 0d.
Pumpherston Min. Oil Co., Ld., Ord. (17s. paid)	£110,500	17s.	£7 12s. 6d. xd
Do. 6% Cum. Pref.	£100,000	£10	£12 1s. 3d. xd
Tarbrax Oil Co., Ltd. Ord. (£1 pd.)	£65,000	£1	£1 16s. 0d. xd
Do. 6% Cum. Pref.	£40,000	£1	£1 3s. 3d. xd
Young's Paraffin Co., Ltd., Ord. ..	£452,808	£4	£2 19s. 3d.
Do. "B" Deb...	£150,000	£100	£150 0s. 0d.

DUTCH COMPANIES.

Company.			Latest Quotations. (per cent.)
Dordtsche Petroleum Industrie My.		Aand.	176
,, ,, ,, ..	Pref.	,,	197
Int. Roum. Petroleum Maatschappij ..	..	,,	25½
Royal Dutch Petroleum Co.	Old	,,	551
,, ,, ,, ...	New	,,	523
Mœara Enim Petroleum Maatschappij	..	,,	265
Oklahoma Petroleum Co.	Pref.	,,	114¾
,, ,, ,, ...	Ord.	,,	45
Perlak Petroleum Maatschappij ..	..	,,	132½
Sumatra Palembang Petroleum Maatschappij		,,	207
Zuid Perlak Petroleum Maatschappij ..	Pref.	,,	167½
Union Petroleum Co.	..	,,	85¾
Bibi-Eybat Petroleum Maatschappij ..	..	,,	25
Russian Petroleum and Liquid Fuel Co.	..	,,	8
,, ,, ,,	Pref.	,,	9⅜
,, ,, ,,	(6% Debs.)	,,	64
Schibaieff Petroleum Co. (Ord.) ..	..	,,	7½
,, ,, ...	Pref.	,,	8
Shell Transport and Trading Co. ..	Ord.	,,	465
Tulsa Petroleum Co.	..	,,	94

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THE
PETROLEUM REVIEW,
45, St. Mary Axe, London, E.C.
American Office: 111, Broadway, New York.

Saturday, June 18, 1910.

THE FUTURE OF MAIKOP.

IN view of the great interest which is being manifest in the newly discovered district of Maikop as a petroleum producing centre, I feel that the present moment is opportune to say a few words in regard to what I believe the future of Maikop will be among the great oil producing centres of the world.

Let me say at the outset that I generally view oil booms in their dull matter of fact light, and thus am not led astray either by the aspirations of a few, or the excitement of the many.

I have spent fully thirty years in the petroleum industry; I have watched it grow from small things to its present mighty proportions, and therefore am qualified, I should imagine, to express my personal opinion as to what the Maikop of the future will be. I would also have it understood that I hold no brief for "booming" Maikop; I have one desire, and that is, to see the petroleum industry prosper throughout the world, for it is my conscientious belief that its future will indeed be truly great.

As one who has laboured for many years in connection with endeavouring to encourage the export of Russian oil, I have always recognised the great disadvantage under which the Baku fields laboured by reason of their distance from the export port of Batoum. The efforts I put forward many years ago which, I have reason to believe tended somewhat to the laying of the kerosene pipe line from Baku to Batoum, have, I admit, had an influence for good upon the Baku petroleum industry, but I regret to say the attitude of the Government in advancing the freight rate for export purposes had a most detrimental effect upon Russian kerosene export, and assisted to bring it to the unfortunate position it occupies to-day. Determined attempts to persuade the Government to see the error of their ways were unavailing, until quite recently, when, almost simultaneously with the coming to the front of the Maikop fields, the export rate from Baku was substantially reduced, and thus a new future opened before the Baku export trade.

As I have already suggested, however, this move on the part of the Government came a little too late in the day. Efforts had been made spasmodic I admit—to find new sources of supply nearer the seaboard, and the result of these we see in the discovery of the territories of Maikop.

It is only those who have, as I have done, traversed the vast regions which the Maikop field to-day embraces, who can form a true opinion as to what the future of Maikop will be. My frequently expressed opinion is that Maikop will practically revolutionise the European oil trade. The advantageous situation of Maikop will naturally count for much. Geographically, its position could not be well improved upon. It is within fifty miles of the sea coast of the Black Sea, and thus in the enviable position of being able to ship its products to the European and near eastern markets absolutely without the opposition of any other fields in Russia. Maikop oil will in the future find its way to those consuming though far distant markets, where once Baku products were profitably distributed, and the vast openings in this respect can scarcely be appreciated without much consideration. Travelling, as I have done, throughout the fields of the world, I have to admit that the opinion I have formed as to the prolific nature of the Maikop territory is one of the most optimistic. But, at present, Maikop is only in the making. Wherever wells have been carefully drilled, the prolific nature of the oil sands —and there are several—has been revealed, and when once the industry becomes soundly established—when storages are built, and adequate facilities for transport laid down—Maikop will make an enviable name for herself throughout Europe, and, doubtless, far beyond.

Such a statement as the one I have just made may need explanation, otherwise it will possibly be misconstrued. Maikop will never be the only oil field of Russia. Baku and Grosny will in the future occupy positions unassailable. These two territories are situated admirably for the supply of those vast consuming centres scattered throughout Central Russia. The interior trade of the Tzar's domains will ever remain for Baku. The economic transport of the Caspian Sea with the Volga serving the very heart of Russia is an advantage which Baku can claim as her own, and not all the influence of Maikop will disturb her proud position. Her export trade may further wane, but her trade with the Russian interior will for ever remain, and with this Baku can find ample outlet for whatever products the Black Town refineries can turn out.

In regard to Maikop, I look forward with assurance to the influx of English capital finding ample return, and though some there may be who would have us believe that Maikop may not come up to expectations, I would still adhere to my firmly rooted opinion as to the prosperous future which awaits developments of Maikop's rich oil territories. None of us have of course that prophetic eye to even momentarily glance behind the veil which hides the future, but from my personal investigation throughout Maikop, I am convinced that her future will be one of exceeding prosperity.

There is only one thing which I would at this juncture desire to impress upon the numerous English companies who have sought out Maikop as the centre of their industrial activity. During my experience, I have seen many instances of how fortunes have been lost by lack of care in the initial stages of exploitation. The site for boring operations must of necessity be selected with the greatest of care, while the boring operations must be in the hands of drillers whose experience teaches them to exercise the greatest care. Given these two essentials, and the interests of English capitalists in Maikop will be doubly safe.

P. Dvorkovitz.

PRODUCTION OF ENGLISH COMPANIES IN RUSSIA.

Baku Russian Petroleum Co., Ltd.—The production for the week ended May 21st was 150,050 poods; and for the week ended May 28th was 137,150 poods. These figures are exclusive of oil produced from plots leased off.

Russian Petroleum and Liquid Fuel Co., Ltd.—The production for the week ended June 4th was 135,000 poods, or 2,177 tons; and for the week ended June 11th was 140,000 poods, or 2,257 tons.

Spies Petroleum Co., Ltd.—The production for the week ended June 5th was 323,590 poods, or about 5,219 tons. The total production for the year to June 5th was 6,477,635 poods, or about 104,478 tons. The total production for the corresponding period last year was 5,245,515 poods, or about 84,605 tons. The production for the week ended June 12th was 320,555 poods, or about 5,170 tons. The total production for the year to June 12th was 6,798,190 poods, or about 109,648 tons. The total production for the corresponding period last year was 5,466,625 poods, or about 88,171 tons.

The European Petroleum Co., Ltd.—The production for the week ended June 5th was 111,416 poods, or 1,796 tons; and for the week ended June 12th was 108,620 poods, or 1,751 tons.

Foreign Importing Firm desires to know the names of Scotch makers of Hot Neck Grease. Write to H., c/o this paper. Can any reader oblige?—Ed., *P. R.*

THE OIL FIELDS OF TRINIDAD.

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An Interesting Account of a Visit to the Island.

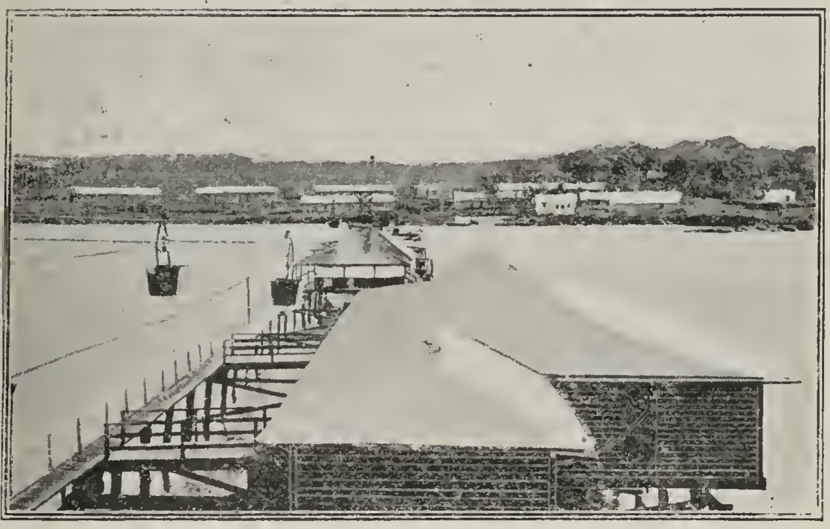
The following article, written by the Special Commissioner of the *British Export Gazette*, recently appeared in that well-known publication, and thanks to the Editor of that journal, we have been favoured with permission to reproduce it. The article is as under: —

Oil is now occupying such a large share of public attention, and particularly as regards an all-British supply, that it will be opportune if I place on record the full facts connected with the little-known oil fields of Trinidad, that beautiful little West Indian Island washed by the Caribbean Sea. Having only recently returned from there, I am fortunately able to bear testimony at first hand as to the value and extent of the oil deposits in that part of the British dominions, for owing to the news of their existence having only reached England and other parts of the world within the past two or three months, considerable scepticism not unnaturally prevails as to the reality of the alleged discoveries. I am therefore in a position to set these doubts at rest, and for the first time to give publicity to an accurate and unbiased account of the remarkable developments now taking place in Trinidad.

Excavating the Pitch at the Pitch Lake.

I have in the first place to express my acknowledgment to Mr. Algernon E. Aspinall, the courteous secretary of the West India Committee, who, when he was made aware of my impending departure for the West Indies and South America, called my attention to Trinidad and its oil fields, about the existence of which, like so many others, I was in absolute ignorance. I knew the island was famous for its cocoa, sugar and other tropical produce, and was aware in a general way that it also exported large quantities of pitch, but I had not the remotest idea that it produced oil. Mr. Aspinall placed certain evidence before me that impressed me greatly, and acting upon his pressing suggestion that I should on no account miss Trinidad in my itinerary, I proceeded thither with the least possible delay, and now set forth the result of my personal investigation of the work actually being done on the oil fields.

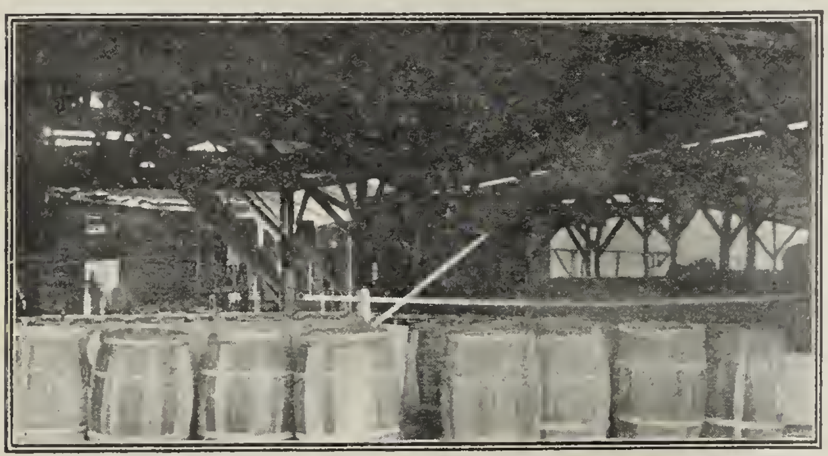
Notwithstanding that Columbus discovered Trinidad 500 years ago, very little has been heard of it since, except as one of the most prosperous of our West Indian possessions, and it may therefore be said to have only been re-discovered in recent months, so great is the interest now being taken in that beautiful little colony, owing to the knowledge just filtering through to England that it possesses enormous deposits of highly payable mineral oils. Sir Walter Raleigh, when he sailed into La Brea harbour, on the Gulf of Paria, after one of his filibustering attacks upon the Spanish main, and destroyed the then capital of the island, caulking his ships after his raid with the pitch taken from what is now well known as the Pitch Lake, or the "Stygian Pool," as Kingsley strangely and erroneously termed it, may be said to have been the first discoverer of the petroleum deposits; while to come to more modern times, Sir Ralph Woodward, a former Governor, who utilised the crude hydrocarbide gas from the pitch as an illuminant in the steeple of Holy Trinity Cathedral at Port of Spain, and got soundly abused by the citizens for the stench he created, may also have had an inkling of the mineral wealth lying beneath the bountiful soil. Be this as it may, it is a surprising fact that until quite recently very little if anything had been done by the Government or private individuals to determine what relation pitch had to oil, or to exploit the known deposits of the latter for commercial purposes. Possibly the explanation for such inexcusable apathy is that the planters of Trinidad have always enjoyed an abundant return from its fertile soil, and therefore contented themselves with the profitable harvests obtained from its cocoa, bananas, sugar, coffee, cocoanuts, and other tropical produce without troubling about such an unpleasing and dirty commodity as oil. Or it may have been the knowledge that the sinking of wells required considerable capital, which the planters did not possess, and as petroleum had not then become one of the world's staples, they have continued to live in their lotus-land, utterly indifferent to the existence of oil or anything else but the products whence they derive their livelihood.



Skips Conveying Pitch from the Pitch Lake to Steamers at the New Brighton Jetty, La Brea.

The credit for the awakening which has since followed is due entirely to two men, Mr. Randolph

Rust and Mr. E. C. Cunningham-Craig, B.A., F.G.S., the late geologist to the Government of Trinidad. Ever since 1892, Mr. Rust, who is head of the prominent merchant firm of Rust, Trowbridge and Co , and a former member of the Legislative Council, has devoted his entire time, and, I may add, the whole of his not inconsiderable fortune, to proving that payable oil exists in Trinidad. His faith was unbounded and his enthusiasm limitless, but he was scoffed at, derided, and regarded as a semi-lunatic by those he most sought to benefit, notwithstanding that his views were supported by so distinguished an authority as Professor Zuba, who, some eight years ago, paid a chance visit to the island. This expert declared that he had never seen an oil field so closely resembling that of Baku, yet nothing seems to have been done to exploit it on any scale. Mr. Rust, who was utterly inexperienced, after spending large sums of money in experimental "wild-cat" borings in various parts of the island, and not always on the best advice, ultimately secured a very large concession of 24,566 acres from the Government of Trinidad at Guayaguayare, on the south-east coast, upon which he and his friends commenced operations, and had spent something like £80,000 on the property up to the end of last year. Twelve wells were sunk at depths ranging from 500 feet to 1,000 feet, all but one yielding oil of excellent quality, an analysis of which by the Government gave 15 per cent. of naphtha, 46 per cent. of illuminating oil, 36 per cent. of lubricant, and only 5 per cent. of residual bitumen. Since then the crude oil at greater depths has been found to yield 73 per cent. of illuminating oil at the high flash-point of 250. Thus, Mr. Rust may legitimately claim to be the pioneer of the oil industry in Trinidad, and I am glad to be able to record that he has lived to reap the reward of the faith that was in him, while the sceptics who scoffed have been silenced.



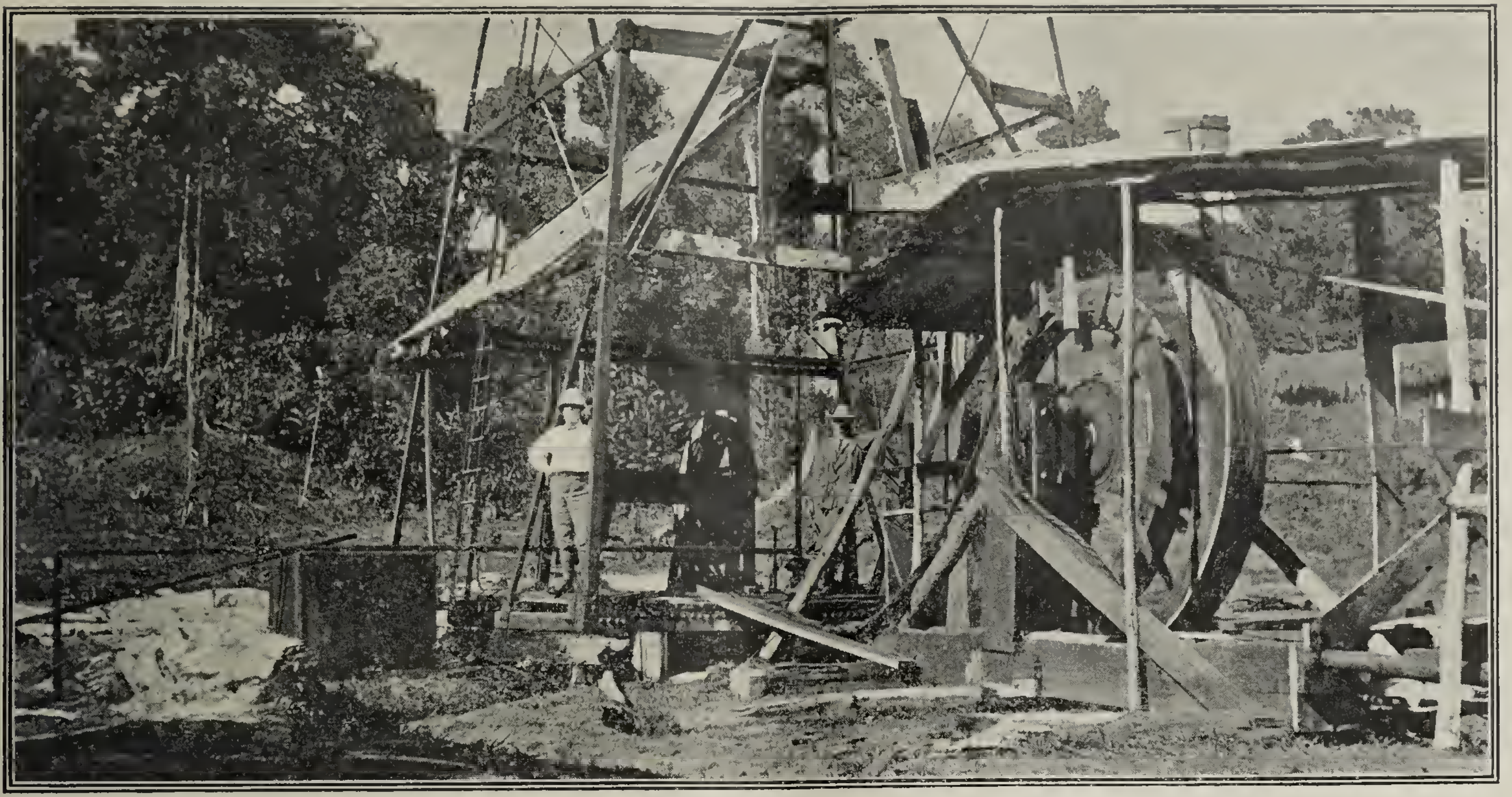
The Pitch Refinery, Pitch Lake.

But, as the *Pall Mall Gazette* has rightly pointed out, it is to Mr. Cunningham-Craig that credit must be given for placing Trinidad in its present unassailable position as an oil producer. Belonging to the Scottish Survey, on his appointment as Government Geologist in 1894, he immediately set himself to a thorough examination of the geology of the island, and, up to the time of his retirement four years later, to take up a position with, I believe, the Burmah Oil Co., he had examined and mapped the whole of that portion of Trinidad which his investigations have since proved to be oil-bearing. These are embodied in a series of admirable reports which were from time to time presented to the Legislative Council, and are a model of lucidity. Briefly stated, he conclusively determined that the three essential conditions existed in the island for the formation and natural storage of petroleum, viz.: (1) a quantity of material from which the oil can be formed by chemical processes; (2) strata sufficiently porous to contain the oil; and (3) impervious strata above to seal up the natural laboratory in which these little-known chemical processes take place, and to prevent the escape of gas or volatile material. All these conditions, according to Mr. Craig, are present in the tertiary strata of Trinidad, and without entering into unnecessary technical detail, the evidence adduced by him clearly shews that at least one-third of the island, *i e.*, the southern portion, is virtually oil bearing from the Gulf of Paria on the east to the Atlantic on the west, a distance of something like 70 miles.

Spouter at the Pitch Lake, the Daily Yield of which is 42,000 Gallons.

The Two Largest Tanks ever Constructed. Each one Holds 2 600,000 Gallons of Oil.

The tertiary rocks of the southern part have, it seems, been bent into four enormous basins, each being divided



One of the Wells of the General Petroleum Properties of Trinidad, Limited.

by sharp and well-defined arches, or anticlines, as they are more familiarly called. It is unnecessary to particularise as to their locality.

On each side of the crests of these anticlines, the upper oil rocks are found, while in the centres of the basins the oil sand naturally plunges down deeper. The greatest of these anticlines is the southern, which, as the Government's map shews, extends across the whole of the island from Guayaguayare Bay on the Atlantic to Los Gallos on the Gulf of Paria, and is doubtless continued to the adjoining mainland of Venezuela, with which it is indisputable Trinidad was at some remote period connected. In addition to the geological evidence of oil bearing deposits everywhere along the anticlinal crests, Mr. Craig found surface indications of oil or oil "shows," as they are called, whether mud-volcanoes ranging from 5 to 100 yards in diameter, gas wells, pitch deposits, or exudations of oil. Indeed, to quote Mr. Craig, there is evidence to prove "that from east to west the galeota oil sand contains petroleum in considerable quantity." In short, his expert knowledge was so complete and his investigations so thorough, that it is now possible to calculate with a fair amount of accuracy at what depth any oil rock will be struck in any given locality on any of the four anticlines, and certainly within a distance of about a mile on either side of the anticlines. According to Mr. Craig, on the most conservative basis, Trinidad possesses a vast oil field of at least 500 square miles in extent, the evidence he adduces leaving no conceivable loophole for doubt; yet, incredible as the statement may appear, until the past two or three years, not a single portion of this huge area has been adequately tested.

When I arrived in the island the announcement had just been made that the Admiralty had decided to adopt oil fuel for the Navy, and, as a result, considerable excitement existed in consequence of the Trinidad Government having thrown open the mineral rights to the public. Men from all parts of the world, and particularly from Canada and the United States, were

Two of the Oil Wells of the General Petroleum Properties of Trinidad, Limited.

arriving by every steamer in order to obtain the necessary licenses to exploit the oil. Finding, however, that no aliens could obtain grants, the Americans as promptly returned, and included among them, as I was informed, was Mr. Rockefeller, jun. Except that land which is held under what is known as "Spanish titles," whereby all minerals are the property of the freeholders, the Government are the owners of the mineral rights, whether on Crown lands or on property not held under under Spanish titles. As regards the latter, it should be of interest to intending investors to note the statement recently made by the *Pall Mall Gazette* that a test action is likely to be commenced by the Trinidad Government with the view to determining whether the mineral rights now held under the Spanish titles are not vested in the Crown. Little credence, however, need be attached to this statement, for it is inconceivable that the Trinidad Government would seek to upset the validity of titles which have held good for over one hundred years. Very commendable regulations have been framed by the Governor and his advisers in order to keep out the speculator, those who succeed in obtaining a Government grant of land being placed under a heavy bond to sink a given number of wells at stated depths at a large outlay within a certain period or forfeit the bond. In the event of the conditions being complied with, the Government grants a 21 years' lease of the and, renewable for a similar term at a fixed annual rental and a royalty of 2s. per ton on all the oil won, stipulating that a refinery is to be erected on the property, and reserving to itself the right to purchase all the oil for the Admiralty at the market price of the day.

A most satisfactory feature about the Government regulations, as I have stated, is that no license or grant an be issued to an alien, and in the case of syndicates or companies, the registered offices must be in the United Kingdom or any British Colony, while the directors must likewise be British. It follows, therefore, that the oil fields of Trinidad cannot come under the control of any American or other ring, while the action of the Government in reserving to itself the right to purchase all the oil produced in the island, ensures for the Admiralty a supply of oil fuel in a British Colony in a part of the world, the strategic importance of which in times of war, and especially in view of the opening of the Panama Canal in 1915, cannot be over-estimated. Trinidad is only 1,205 miles from Colon, the Atlantic end of the Isthmus, and with a supply of oil fuel now assured, it must inevitably become a naval base, as well as a source of supply to adjacent markets and for ships passing through the Canal. An excellent sheltered harbour, capable of accommodating a big fleet, exists about four miles from Port of Spain, where there is already a large floating dock.

Apart from what may be regarded as merely the hypothetical assertions of a geological expert that Trinidad is an oil field of the dimensions stated above, it may be asked by those who are interested in the petroleum industry, What other evidence of a more practical nature can be adduced that oil actually exists there? This is a very natural question in view of the fact, as already stated, that until two or three months ago, Trinidad was not generally known as an oil field, and as this discovery of petroleum in a British colony is, as I have said, now evoking widespread interest throughout Great Britain, I shall proceed to cite the evidence in substantiation according as I found it, which is supported by my camera.

I would, however, call attention to the all-important fact that unless the Government of Trinidad had had ample evidence that the land on either side of the four anticlines above referred to was actually oil-bearing, they would not have made it a *sine qua non* that any person to whom they granted a license should bind himself under heavy penalties to sink a given number of wells on each grant of land covered by the license, nor would they concur in the senseless expenditure of the many thousands of pounds thus involved without there is an absolute assurance to the licensees from officia evidence that oil will be struck at the depth stipulated for in the licenses to which the wells have to be sunk.

(To be concluded.)

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PETROLEUM COMPANY MEETINGS.

[Reported specially for the REVIEW.]

The Maikop Boring and Concessions, Limited.

The statutory meeting of the shareholders of the Maikop Boring and Concessions, Ltd., was held at the Midland Hotel, Manchester, on Wednesday, June 8th—Dr. P. Dvorkovitz, the company's managing director, taking the chair.

The Acting Secretary having read the notice convening the meeting,

The Chairman said:—At the outset I should like to apologise for the absence of Sir Henry White, who, I am sorry to say, is unable to be present with us to-day. By some mistake the meeting was called for noon, and this necessitated travelling all night, as I have done; still, the directors of the company are always willing to do what they can to please the shareholders, and when it was suggested in this room a fortnight ago that the statutory meeting of the company should be held in Manchester, the directors naturally agreed to that course. Well, with regard to this meeting, it is, as you know, called in order to comply with the Companies' Acts, and though no business can be transacted, the general position of the company can be explained to the shareholders.

This meeting, as I have said, has been called in Manchester at the request of the Manchester shareholders, for this is chiefly a Manchester enterprise, although the directors are responsible for practically 70 per cent. of the money. At the same time, a number of Manchester investors came forward as members of the company, and it is with a desire to carry out the wishes of these that we are holding our statutory meeting in Manchester to-day. This is to a large extent a Manchester business, due no doubt to the fact that Mr. John Thom, a gentleman who has gained a high reputation as one of the best English boring contractors, is associated with the company and has in fact been the mainstay of this boring enterprise. Without that gentleman's active co-operation I should never dream of being associated with a boring company, but having secured his valuable assistance, and not only his great knowledge but also an agreement with him to supply boring tools to the extent of £10,000 on credit, I saw that this company had a most valuable asset, and one which would be very remunerative to those investors who pinned their faith to it.

In any boring enterprise, one of the most necessary elements which conduce to satisfactory and successful work is that the tools used shall be the best possible, and in our case we can congratulate ourselves on the fact that the boring instruments which this company will use will be of the finest quality, and bound to give a good account of themselves on the oil field at Maikop. The tools manufactured by Mr. Thom are known all the world over. You will find them in Spain, in Russian Sakhalin, and in Australia, and therefore it will be recognised that it will be a very great acquisition for your company to have the assistance of Mr. Thom and his boring tools.

Now, let me say a word or two as to the *raison d'etre* for this company. It was formed to carry out boring work in the new Maikop fields in Southern Russia, and formed because of the fact that a very great number of English investors had taken an interest in the development of these fields. At present, according to the data which I have been able to collect, we have nearly £7,000,000 of English capital invested in the new fields at Maikop, and from the information which I have received from my correspondent in Russia, we may expect that that amount will at least be doubled very shortly by the investments of the English capitalistic classes.

Naturally these numerous English companies which have turned their attention to the Maikop fields will, as they should, give preference to the Maikop Boring and Concessions, Ltd., for the boring operations upon their plots. Your board not only has the knowledge and experience of Mr. Thom behind it and the advantage of knowing that it will use the most perfect tools it is possible to manufacture, but the directors have been able to secure as your local manager in Maikop a gentleman of the highest standing in the boring world in Russia. In the conduct of your boring operations, therefore, your company will have the combined knowledge and experience of Mr. Thom and also Mr. Schatiroff, the latter gentleman having for the past twelve years been at the head of a highly successful boring company which conducts operations chiefly in Baku.

Well, I may here say that your board was asked by some Manchester gentlemen to be allowed the opportunity of attending this meeting, for inasmuch as they possessed 32 claims in the Maikop district, they felt they would like to know as much as possible about Russia's new oil field. Your board naturally agreed to allow these gentlemen to be present at to-day's proceedings, for the reason that we thought it would be to our interests to work in harmony with as many English companies as possible who, having claims in the Maikop field, must necessarily sink wells upon them. Thus we do not see any reason why our company should not get these contracts, and I am sure that by our coming into contact with other Maikop companies, it will be of the greatest assistance in the rapid development of the many claims which English companies have in Maikop. At the same time, I think you will be satisfied to know that at present we practically have the offer to bore upon 46 claims belonging to three different English companies, and I believe that before Mr. Thom and myself go out to Maikop in the course of a week or two, we shall have already something like one hundred claims for our boring operations.

A Shareholder: Will those contracts be upon profit-sharing terms?

Dr. Dvorkovitz: No, but they will be upon a basis which will yield us a good return.

Continuing, Dr. Dvorkovitz said: Inasmuch, as I see before me several gentlemen who were not present at the former meeting of this company, I think it would not be out of place if I gave an explanation as to the value of the Maikop oil fields from a petroliferous point of view. As you will see, I have specially prepared a coloured map of the new fields, shewing the position of the whole of the plots. In all, there are about one thousand claims in the Maikop field, which is nearly twenty-five miles wide and in length over twenty at its longest portion. When these claims are taken over, the purchasers have a period in which they must sink a trial boring, and then from the one hundred acres which constitute each claim, they have to make a final selection of twenty-seven acres which is granted by the Russian Government to the claimants for twenty-four years upon lease.

Now we have heard a great deal of the advantageous position of the Maikop fields from a geographical point of view. It goes without saying that these new regions occupy an unique position. Hitherto the supplies of Russian oils have been produced either at Baku or at Grosny. In the case of Baku, it is nearly 600 miles from the Black Sea (situated as it is on the Caspian), being connected with the export port of Batoum by a line of railway and also by a pipe line for the refined oil. The other developed field is that at Grosny, situated on the northern slopes of the Caucasian range between the Black Sea and the Caspian Sea, and about 400 miles from the Black Sea. The transport of products from the Grozny field is by railway. Now, neither of these Russian oil fields can seriously compete with us for the European oil trade, for in the first place they are far too distant from the port of export, the oils having to pay prohibitive freight rates from the producing fields to the port of shipment. Therefore the Baku and the Grosny fields must in the near future chiefly rely upon the Russian interior markets for the consumption of their petroleum products. For this inland trade the Baku fields are very excellently situated, since from the Caspian Sea there is the advantage of the great waterway of the Volga which goes for 2,000 miles right into the heart of Russia, and so reaches more than one-half of the population. Such advantages for reaching the inner markets of Russia no other field possesses, but, at the same time, Baku is considerably handicapped in regard to export.

A quite different position, however, is occupied by the Maikop fields. Maikop is but fifty miles from the Black Sea, to which place pipe lines are to be laid down. In fact, already no less than four companies are constructing pipe lines, and Messrs. Moreing have already delivered pipes for the line at Enim, from which place they are to lay down a pipe line to Maikop, and so by means of the railway they will deliver their oil to Novorossisk which port at present exists chiefly for the purpose of exporting the petroleum products from the Grosny fields. Quite naturally the Maikop oil will be a very serious competitor with the products from Grosny, but the pipe line I have referred to will more or less be a temporary arrangement, for we shall soon see pipe lines laid from the field to Tuapse—fifty miles away—to which place also a railway is to be constructed.

The Maikop field is very rich in petroleum, as is proved by the following facts. Last September a well was brought in which in the course of a few days spouted no less than 30,000 tons of crude oil, and even now it is producing not less than one hundred tons daily. Then close to that spouter is a very successful well of the Black Sea Oilfields, Ltd., an English concern. That well came into operation while I was on the field, and though the workers succeeded in capping it, the pressure is so great that about 150 tons of oil is thrown out daily, and this in the course of a few minutes.

There are many events which to my mind clearly prove the great value of the Maikop field as a large oil-producing territory. As you are perhaps aware when I was at Maikop some weeks ago, I selected a parcel of claims for the Maikop Oil Proprietary Co., Ltd., and I am pleased to say that trial borings which have been made upon some of these are being very successful, for only a couple of days ago I received a cable stating that one trial boring was expected to come in a spouter. Simultaneously, similar successes were met with upon other plots, where an enormous pressure of oil and gas was encountered, all this tending to corroborate my statement that the Maikop field is phenomenally rich in petroliferous wealth. In fact, up to the present, all borings put down in the new fields indicate enormous reserves of oil in that district. The Maikop field has not been commercially exploited hitherto for the reason that some thirty years ago boring operations were conducted some two hundred miles further north by the Rothschilds, who lost very heavily, the result being that the whole coast of the Black Sea has been condemned as non-productive of oil in quantities. It is only now that this prejudice against the Maikop region is being overcome. Facts such as are now being known of the Maikop fields and their oil wealth have been an eye-opener to the people in Baku, and to-day there is scarcely a producer in either Baku or Grosny who has not acquired some claims in the new field.

To the credit, however, of English promoters and capitalists be it said that they have secured the best situated plots in the field, and have paid less for them than those in Baku who have acquired claims.

But in spite of the prejudice which has existed against Maikop, a petroleum producing proposition has been conducted in the Neftannoie region in Maikop for many years. The oil was taken from hand-dug wells by the Cossacks, and a refinery was even in existence until the eighties for the purpose of refining the crude oil so received.

But there is one important side to the question of oil-field interest which is of the greatest importance, and so far as I know has not been mentioned hitherto. As we are all aware, English steamship companies are going through a very severe crisis. Freights are very low, and economy is one of the most important points in order to keep going. To my knowledge there is one item upon which they could considerably economise, and that is with regard to fuel. So far, we know they have been considerably handicapped on account of the fact that the coal obtained in other parts of the world has to be first got from England, and one cannot blame the bunkering people for charging a good price for it—to-day this is a most exaggerated price. I believe from some schemes which have already been put before me that very shortly, owing to the Maikop fields, there will be a large number of bunkering stations for oil supplies throughout the Near and Far East—and in time in other places—and this will without doubt assist to reduce the price which steamship owners now have to pay for their coal at bunkering stations. I believe that even with the best Cardiff coal down at 6s. 6d., the liquid fuel would be able to compete with it, and I think this is an important factor. It is especially important for a nation such as ours, which is interested in the carriage of the goods of the world. The next point, which in my opinion is a very important one, is that England at present imports something like one and a-half million tons of petroleum products each year. Hitherto, England has been practically the only country in the world where no petroleum refining industry exists, and this is chiefly due to the fact that there is no protection for the home industries. So far as my own opinion goes, we shall find our own way to establish such industries without protection if we have the best conditions.

Personally, I believe the interest of the English capitalist in the Maikop fields will result in the establishment of a very large refining industry in this country. We have the oil fields in which so much English capital is interested, we have oil pipe lines owned by English companies, and we have tank steamers built and owned by English companies, and thus I believe we shall shortly see the realisation of the hopes which I have had for many years that a really sound petroleum refining industry will be established in our midst.

The few points which I have explained, gentlemen, will I think encourage you to look with greater interest to the Maikop field, in which territory the Maikop Boring and Concessions need have no doubt as to its successful future.

Several questions were then addressed to the Chairman, who, after replying to these, had a hearty vote of thanks passed to him by the shareholders upon the motion of Mr. Abercrombie.

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The Maikop Oil Proprietary Company, Limited.

The statutory meeting of the shareholders of the Maikop Oil Proprietary Co., Ltd., was held on Monday week, at the Institute of Chartered Accountants, Moorgate Court, London, E.C., Mr. F. S. E. Drury (chairman of the company) presiding.

The following official report has been supplied to us by the company:—

The SECRETARY (Mr. F. C. WOON) having read the notice convening the meeting,

The CHAIRMAN said that, as that was the statutory meeting of the company, there was no business to transact. But their attendance at the meeting that day afforded them an opportunity of receiving any information which the directors had to give them from which the shareholders might be enabled to gauge the value of their investment. As regarded the report which has been circulated amongst the shareholders, he had only to note that that was made up to May 21st, and since that date a further instalment had become due upon the company's shares, making 15s. paid. With reference to the cash received, the company had now at the bank or on loan a sum of £24,860, and this, with the instalment outstanding, would bring their resources up to £65,078. He did not propose to weary the shareholders that day by going over the ground which had been covered at the meetings of other Maikop companies, for Maikop was pretty well known to-day to the investor in oil securities. He would therefore only just state the conditions under which companies such as theirs acquired their property. The petroliferous land in the Maikop field was divided into plots of approximately 100 acres each. From the date of acquiring a plot from the Kuban Government two years were given in which that plot could be investigated, and at the end of that time, the company which had taken up the plot had to select 27 acres, upon which they paid to the Government a royalty of 48s. per annum, plus a royalty of 1s. 3½d. per ton of crude oil received from borings.

Their company, as the shareholders would recollect, had acquired 15 plots, which were selected on the spot, from a great number, by their managing director, Dr. Paul Dvorkovitz, and he would leave that gentleman to tell the shareholders as to the probability of obtaining good results from the area selected. As they might have seen in the newspapers, they were putting down three trial borings upon each of the four plots selected by Mr. Winda for initial operations. Mr. Winda was an eminent Maikop geologist, and they had instructed him to make a similar number of borings upon two other plots. From the knowledge gained from that expenditure they would, of course, choose the portions in each area for development by the company. Dr. Dvorkovitz was leaving for Maikop that month to arrange for further trial borings upon the remainder of the plots, and he hoped the Doctor would be able to send them some satisfactory news of the work which he would have the opportunity of personally inspecting on the field. He would leave it to Dr. Dvorkovitz to tell them of the results already obtained on the field; but one result he had pleasure in personally announcing. They had received a cablegram from Mr Winda, which read: "The success of plot 110 absolutely assured; expect a spouter." Continuing, the chairman said the company did not propose to invest any of their capital at present upon boring plant, but to have the work done by contract. The first course not only entailed a large investment of money, but also the selection and control of a staff of their own, and they thought it better for the present to entrust the work to one of the many efficient boring engineers on the field who had gained local experience in Baku and other neighbouring districts. As the shareholders would be aware, oil (as one of the daily papers stated last Saturday) had become one of the most potent factors in the industrial outlook of the present and coming centuries. The public had lately invested considerable amounts of money in oil ventures, and was awaiting with great interest the result of the exploitation work undertaken on the Maikop and other fields. Success would doubtless bring forward fresh capital for the exploitation of oil territories. The merits of oil as a fuel were well known, and would be taken advantage of to a greater extent if there were a greater certainty of the supply being sufficient. The wider-spread interest in oil would also result in the production being vested in more numerous hands, and that, in its turn, would give greater confidence to consumers that the market would be a natural one.

It was sometimes stated that there was no foundation for the public interest in oil shares; that it would be time enough to invest in them when the price of oil went up. That, however, was not the case. They did not need a rise in the price of oil, but a larger supply, which would encourage the development of its use, in order to add to the value of investments in oil properties, and to that larger supply their company would endeavour to contribute.

After moving the adoption of the statutory report, which was seconded by Mr. Allen Paull, the chairman called upon the company's managing director to give the shareholders more detailed information as to the progress which has been made upon the company's properties.

Dr. Dvorkovitz pointed out that it was only after a lengthy tour of inspection in the Maikop field that he decided upon recommending the 15 plots which their company acquired. The Maikop field was a very vast territory, being 25 miles wide and almost as long in its longest part. Upon close investigation he failed to find any trace of an oil belt in the field; yet bearing in mind the many surface indications which were present as to the petroliferous nature of the district, he decided that the safer course would be to select plots over as wide an area as possible. He, however, paid special attention to the district of Khadijensky, where, near to the so-called Asphalt Mountains, oil could be found only a few feet from the surface. He took the sample of oil from a boring, and, analysing that alongside the crude oil obtained from one of the fountains in another part of the field, he found that the two oils were exactly the same, this fact leading him to the conclusion that not only was the source of supply of the two oils identical, but that the Maikop field was more or less petroliferous throughout its area. Their company had three plots in Khadijensky, one of which was close to the main road leading from Maikop to Tuapse, and also close to the projected railway line, which, he was informed, would be ready for traffic next year. One of these plots —No. 668—was exceedingly advantageously situated; for if oil was not found in large quantities, the plot was very valuable for the purposes of erecting the necessary buildings and houses for the staff. Then, in the same district, they had plots Nos. 110 and 125, both also of great value, as was already proved, since, as the chairman had announced, they had received a cable from Mr. Winda stating that from the first-named plot they might expect a spouter at any moment. As to plot 125, that was in close proximity to the plots of the Black Sea Co. Plots 611, 614 and 617 were in the Schirvanski region, close to where the three spouters had already been brought in. It was upon these plots that Mr. Winda proposed to immediately start trial boring operations, and by using six inch pipes he confidently expected to encounter very large quantities of oil. Plots 216, 233, 261 and 452 were practically in the centre of the field, and he had every reason to believe that by deep boring large quantities of oil would be struck upon some, if not all, of those plots.

Finally, there were plots numbered 725, 269, 283, and 294, all of which were in the Neftannoie district. In that portion of the Maikop field, almost from time immemorial, the inhabitants had got oil from numerous hand-dug wells, and even until 1888 there was a refinery in that locality at which the crude oil from the hand-dug wells was refined.

Whatever the future had in store for the company in regard to the other plots, he did consider those in the Neftannoie region as an absolutely sure investment which would return for them reasonable profits. Personally, he was not greatly struck by the value of spouters, which were spasmodic in their character and which frequently stopped flowing when the necessary storage accommodation was laid down. He would rather see their company in possession of wells which regularly produced commercial quantities of oil by baling; for it was upon such wells that they could safely rely and base their profits. He noticed that in certain quarters there was prevailing the idea that the new Maikop field would place the older Baku regions quite out of the "running" in regard to oil production. In reply, he could only say that his firm opinion was that both territories could advantageously occupy the positions of large producers of crude oil. Maikop was admittedly very advantageously placed in regard to export, and could secure the monopoly of Russian oil trade in the foreign markets. Baku, on the other hand, and the large consuming markets of Central Russia at her very doors, and placed, as she was, upon the great waterway of the Caspian Sea, by which, by way of the Volga, the central consuming markets of Russia were economically reached, her position in that respect was unassailable. He thanked the shareholders for the patient way in which they had listened to his remarks, and assured them that few people, even at the present time, recognised the great future which was before the Maikop oil field.

A hearty vote of thanks was passed to the Chairman and Dr. Dvorkovitz for their respective addresses, and the meeting terminated.

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Trinidad Oilfields, Limited.

The statutory meeting of the Trinidad Oilfields, Ltd., was held on Tuesday week, at Winchester House, London, E.C.—Mr. Corbet Woodall presiding.

The Secretary (Mr. R. G. Longcroft, F.C.A, LL.B.) having read the notice,

The Chairman said: This company was registered on February 23rd last, and the prospectus was issued on the 28th. At half-past two in the afternoon of the same day the list was closed, and it would have been closed earlier but for the necessity of communicating with the brokers in Scotland. The number of applicants was very large indeed, and created a situation more embarrassing than I think I have ever had to face before. The plan upon the wall will enable the proprietors to understand what the properties are and their relation to each other and to the sea. The La Fortunée estate and the Adventure estate run parallel to each other and are adjacent, but between the Adventure estate and the Crown lands lies the Clifton Hill estate. There already exists a road and tramway from the coast through La Fortunée on to Adventure estate, and the value of securing Clifton Hill with the view of continuing the road through this estate on to Crown lands was palpable. The directors report with satisfaction that they have acquired the fee simple of this property for the sum of £12,500, and as the Trinidad Oilfields, Ltd., acquired direct from the owner, there has not been any intermediary profit to pay. There is an additional and even more important factor which influenced the directors in their decision to purchase Clifton Hill. It is that thereby a continuity is secured upon the anticline, which now stretches in an unbroken line through the three above-mentioned estates right on to and across the Crown lands, a length of about three and a-half miles. Along that line it is the intention of the directors to carry a railway, and that railway will probably be not only of great use in helping us in developing the property, but also a source of revenue, because it will enable us to assist our neighbours, and so bring in an income.

The spots marked on the plan indicate the wells already sunk, and I may say, with regard to numbers 3, 4, and 5, that they are all reported by our colleague, Mr. Duckham, who has been out in Trinidad, and is returning this week, as flowing vigorously. With regard to the operations on the oil fields, the shareholders will understand that a scheme that was suitable for an exploration company engaged in proving a property is hardly adequate for the purpose of a commercial undertaking such as we hope the Trinidad oil fields will become. The directors have decided—and they are supported in their decision by their advisers, Messrs. Thompson and Hunter—that a scheme to ensure permanent success should provide complete equipment, including means of transport, quarters for the European and native workmen, stores, and so forth. With this object a capable engineer has been sent out to Trinidad, and is now making a full survey of the property, so as to determine the route to be followed by the railway, and also a suitable place for the town site and for the workshops. Meanwhile, orders have been placed for practically the whole of the plant that will be required for the work during the next year. Among the rest we are sending out three miles of railway and a locomotive, the steam for which will be generated by oil, and also some large storage tanks; and we are also getting together as efficient a staff as we can to carry on the work.

Until the transport is complete, and the rigs and additional drillers have arrived, progress must be comparatively slow; but we are pushing on, and in a very short time we shall be drilling several wells concurrently. Drilling is proceeding at the well marked on the plan on the Adventure estate, and a place is being prepared for a second on the same estate. I may mention that a portion of that estate was leased to the Trinidad Lake Asphalte Co., and the lease only terminated at the commencement of the present month. The uses of petroleum, I need hardly say, are increasing not only in number, but also in the quantity of the demand; and among the sources from which that demand will be supplied, there is, in my opinion, no more promising one than that of the Trinidad Oilfields, both because of the low price at which oil can be worked in Trinidad, and also because of the markets available for its sale. I am not inclined to take a place among the prophets; it is so much better to wait until one knows. At the same time, I refer you to the prospectus, the statements in which were sufficiently attractive to cause you to become members of the company, and I say that the position to-day confirms the hopes and expectations in which the directors then indulged. Before sitting down I have one piece of news to give you, and I communicate it with very great pleasure. It is that Mr. Alexander Fraser, the managing director of the Pumpherston Oil Co., Glasgow, has to-day consented to join the board of this company.

Mr. Braithwaite asked when the directors hoped to be in a position to begin marketing the oil.

Mr. Beeby Thompson said the question of production on a sufficient scale to commence export was a rather difficult one to answer. The whole area was covered with dense forests, which had to be cleared, and bridges had to be put over streams, and railways constructed, and that, naturally, took some little time; but if they had reasonably good luck in their work and fairly good health among their employes, he thought that in twelve months' time they ought to be in a position to get quite a fair production of oil.

The Assam Oil Company, Limited.

The twelfth ordinary general meeting of shareholders in the Assam Oil Co., Ltd., was held on Wednesday week, at Winchester House, Old Broad Street, London, E.C.—Lord Ribblesdale (chairman of the company) presiding.

The Secretary (Mr. S. Maclean Jack) having read the notice convening the meeting and also the report of the auditors,

The Chairman said: In the first place, I must express the regret, which I am sure will be shared by all the shareholders, at the loss we have suffered since we met last year by the death of our colleague, Mr. Agnew. We have lost the value of a large and mature experience in Indian affairs. We do not propose at present to fill up the vacancy, as the appointment of Mr. Evan Jack made up our number to six. I do not know that I need trouble you with any details in reference to the accounts; I only wish that they shewed a more satisfactory result. You will remember that last year things looked a good deal better. We had a good year, and prices at that time shewed a tendency to recover and to improve, and as everything was going on well at the refinery, and the long and costly experience of the early years of this company had produced fair results, there seemed to be every reason to suppose that if prices held good, and competition did not exacerbate, we might do quite as well this year, or perhaps better than we did last year. Unfortunately, as is common knowledge to anyone who studies oil and oil prices, quotations fell away in India, and we have also been submitted to competition of a most intense character. I believe the prices which we are face to face with in the accounts under consideration to-day are all but the worst prices we have ever experienced, and the competition has unfortunately affected the Calcutta market, which is the chief market, and which sets the tune of prices for us. However, prices are a little better again; but it is quite impossible to say whether they will hold good. So far we have only made a few sales at the better prices. To the native consumer cheap oil is a pleasant and cheerful commodity, just as it to anybody else. He is extremely likely to husband it carefully, and he will not buy until he needs to do so, in the hope that there may be a break. But there is this advantage to us: that the purchaser, sooner or later, must come in, for oil is a thing he must have, and we are the people to whom he must come; and, sooner or later, whatever the prices are, he will have to come in. If better prices hold, we shall get the pull; if less good prices hold, he will get the pull. But that is beyond the control of the board, and it is a matter which everyone who goes into these sort of industries must bear constantly in mind. Not only has oil fallen away in price, but I am sorry to say that paraffin wax, which is one of our pet products, has also fallen away in value; that is to say, the exchange value, because our paraffin wax still remains a most blameless and esteemed production.

I will now turn to matters which are more directly within the control and possibilities of your management and of your board; and here I am able to say that the good condition of things which I assured you of last year has been fully maintained. The refinery and drillery have given us no trouble, but considerable satisfaction, this year, and altogether I have nothing to say but what is good of the actual working conditions in Assam. As the months go on we keep learning lessons in efficiency and proficiency and more economical treatment, and I think Mr. Hawkins—whom we are glad to have amongst us to-day—is constantly doing everything he can to increase those very important contributions to the success of any undertaking. We have also devoted a good deal of attention to improved marketing facilities, and with considerable success. Turning to the balance sheet, you will see that we have increased our insurance account by £900, which brings it up to the substantial sum of £4,640, and as soon as the markets revive I have no doubt that your actual work-a-day financial figures will begin to look better. I wish that we could have paid you what I called, last year, a stodgy five per cent. dividend, which I hoped we should have earned last year; but on referring to what I said last year, I see I spoke of our not being in a very large way, and I also put in a very strong caveat, and referred to the probability in the future of a possible break in prices and the certainty of acute and intelligent competition. Under the circumstances, therefore, we propose to transfer £12,000 to the depreciation account and to carry the balance forward—in all, an amount of £16,035, or over £400 more than we carried forward last year. I had a return made out yesterday, which you can take as the last word on the subject, as to what we should have done this year if prices had held at the same rate as last year, and I find that had our products been marketed at the same prices as last year we should have received £12,600 more of devisible profits; that is to say, the balance of revenue account would have been £25,000 instead of £12,434. That shews a small reduction by comparison with last year, which was £25,900, as against £25,000, which we should have earned if prices had been better, and that would have been accounted for by extra expenditure or settlement, and for the comfort of our employés, and also on the drillery maintenance. We received yesterday a telegram from India giving the most recent development, which is favourable. The telegram runs to this effect: "Have struck oil in a new well, whilst another well, in which we first got the oil a month or two ago, has considerably increased its production." I have now to move: "That the report and accounts and balance sheet to December 31st, 1909, be received and adopted."

Mr. Thomas B. Bowring seconded the motion.

Mr. Frederick Walker asked whether Mr. Hawkins would make a statement to the shareholders before the discussion began.

Mr. Hawkins said the position was purely a question of markets. The company was absolutely dependent upon the price of oil, and the rates ruling in India and other parts of the world affected the company in the same way that it affected all companies. Then, again, they had to meet competition, and in this respect things had never been so bad as they had been last year. The expenses in the production of oil had been rather less than in the previous year; but they had had to expend a good deal of money on the distribution of the oil by forming depôts, in order to be prepared to meet the competition they had to deal with. All these expenses came out of revenue; but eventually the policy must help the company immensely. However, if prices improved, he did not see why a better balance-sheet should not be presented next year; but, as he had already remarked, it was purely a question of markets.

Mr. Frederick Walker complained of the indifferent report which had been presented, and thought the directors might take into consideration the advisability of securing on the board the services of an experienced oil expert.

Sir Boverton Redwood said that he knew, as a matter of fact, that the directors paid great attention to the business of the company, and were doing all they possibly could in its interests. As to the publication of further information with regard to the wells, he did not consider it would be advisable nor to the advantage of the company that such information should be given at a public meeting; but he had no doubt that any shareholder really desiring it could obtain it on application to the secretary

The report and accounts were then adopted.

The retiring directors (Messrs. T. B. Bowring and G. Turner) were re-elected, the auditors re-appointed, and the proceedings terminated.

London Venture Corporation, Limited.

The first ordinary general meeting of this Corporation was held on June 9th, at Winchester House, Old Broad Street, E.C.—Mr. J. S. Smith-Winby, the Chairman, presiding.

The Chairman, in moving the adoption of the report, said: The report and accounts cover a period of 19 months, commencing from the date of the incorporation of the company on October 23rd, 1908, and ending on April 30th, 1910. As the result of the investigation I made before accepting the responsible position of this chairmanship, I was satisfied that the profits shewn by the balance sheet have been fairly and legitimately earned, that the position of the Corporation is thoroughly healthy, and that there should, with a continuity of the existing organisation and methods, be a successful future in store for it. Personally, I consider the report and accounts extremely gratifying, and I think they must be so regarded by the shareholders generally, and particulary those who have held their shares for some time and know the difficulties through which this company has passed in its earlier stages. Those of the shareholders who were present at the statutory meeting held in January last year will remember that my predecessor in office foreshadowed a prosperous career for the Corporation, and expressed the opinion that, with normal markets, the prospect of eventually putting the company in the dividend-paying list was distinctly encouraging. Now, gentlemen, it is hardly necessary for me to tell you that, in the early portion of this company's career, it passed through times which were anything but normal. For a considerable period they were distinctly sub-normal, although it is true there was a small amount of excitement in the South African market for a short time last year, which, however, soon subsided. Then came the rubber boom The growth of public interest and enthusiasm for rubber shares began to make itself manifest in the autumn of last year, and reached its climax by the middle of April this year. During that short space of time we have passed through a period reminding one of the great South African boom of 1895. It was only natural that your directors should be attracted by the current of public events, and about the month of October last they became interested in the rubber market in connection with the Jequie Rubber Syndicate, Ltd., having first carefully investigated the facts as presented to them in regard to the present and prospective value of the rubber-bearing estates owned by that syndicate. The directors view the property with great favour, and look forward to a rapid and prosperous development under the able supervision of Mr. Boustead. The same remarks apply to the West Jequie Rubber Estates, Ltd., an off-shoot of the Jequie Syndicate, Ltd., formed to work and develop a very large rubber-bearing area owned by the parent syndicate. Then came the Madagascar Rubber Co., Ltd., the first of a series of wild rubber vine propositions floated by the Corporation in conjunction with parties controlling the rights over the interesting invention known as the Guiguet rubber cleaning machine. These companies are of special interest, owing to the important part they are likely to play in the rubber production of the future. The Guiguet machine has been put under the most exhaustive trials on a commercial basis in Lyons, where it has shewn successfully what it can do in the way of saving rubber from the bark of the rubber vine from the Congo, and at what cost per pound the rubber can be produced. We are negotiating for a contract with the Madagascar Rubber Co., whereby, in consideration of the sum of £50,000, a small portion of their area can be obtained, together with a licence to operate the Guiguet machines, which have been proved to do their work so well. One of the first matters which will occupy our attention will be the formation of a subsidiary company to take over and work the licences in Madagascar, and there will probably be several other subsidiary companies formed by the Madagascar Rubber Co. later on, though they are not likely to secure quite such favourable terms from the parent company as we have been able to do. The next company handled by the corporation was the Nyassa Rubber Co., Ltd., formed to carry on the same business in the rubber forests of the northern part of Mozambique controlled by the Companhia do Nyassa, and Mr. Stocks, who will be in charge of the operations, leaves for Nyassa with his staff on the 24th of this month. In this case also nine Guiguet machines are on order, and should be shipped in time to arrive at their destination before the end of September, and as there would appear to be no doubt that rubber vines grow in great profusion over certain parts of the forest, an equally brilliant future should await the operations of the company. The next company in which we were interested was the Crude Rubber Washing Co., Ltd., formed for working under an exclusive licence for the United Kingdom, the Continent of Europe, the United States of America, and the Dominion of Canada, the Guiguet machines, so far as the same relate to the cleansing, purification, and rectification of rubber and other gums, together with the rights, except for Brazil, over machines for the same purpose designed by Mr. Dessau and owned by the British Murac Syndicate, Ltd. The next business carried through was the flotation of the General Oil and Finance Corporation, Ltd., and I feel confident that it will give a good account of itself, and be not only a credit but a source of profit to your Corporation as the holder of an option on a large portion of its unissued capital, and as expecting to participate in some of its transactions. With regard to the future and the matters which are engaging the attention of the Venture Corporation, on any return of activity in the Rubber market the shares in our safe and options running should enable a further profit to that shewn in the balance sheet to be made from the rubber companies already issued. We are, as already mentioned, looking forward to the early issue of a subsidiary company in Madagascar, and as you will have seen from the report, we have taken a controlling interest in two estates in Java, which will form the basis of a public issue at an early date. You will notice from the report that the directors have also availed themselves of the opportunity of joining with a leading South African house in the acquisition of a large mining area in Rhodesia, and that there are various other matters under negotiation which have not yet taken a sufficiently definite shape to call for special mention, but I have probably said enough to make it clear to you that there is no lack of business at the disposal of the Corporation, now that its financial standing and successful management have become so generally recognised. With regard to the Norwegian copper mine, which was one of the most important assets of the old company, I may mention that the manager has reported that he produced 14 tons of copper last month, and, as this is a considerable increase over previous returns, it looks as though we were approaching the 20 tons per month which he expects to produce with his present plant. Now that the property has been brought to this stage, and in view of the further equipment which will be nesessary before it can be worked on a larger scale, it is contemplated that a separate company should be formed to take over and work it on a more extended scale in the course of the present year.

Mr. Sidney A. Bird (managing director) seconded the motion, which was adopted with one dissentient.

Russian Petroleum and Liquid Fuel Co., Ltd.

An extraordinary general meeting of this company was held on Wednesday, June 15th, at River Plate House, Finsbury Circus, E.C., for the purpose of confirming resolutions previously passed for the winding up and reconstruction of the company. Mr. Herbert Allen (chairman of the company), presided.

The Chairman formally moved and Mr. Richard Barnett (director) seconded the several resolutions.

The Chairman, before putting the resolutions formally to the vote, said there was one subject he would briefly refer to, and that was the present condition of the oil trade in Baku. At the moment, as he had stated at the previous meeting, Baku was under a passing cloud, and he wanted the shareholders to be careful not to attach too much importance to fleeting changes and conditions in the industry. All commodities had their ups and downs—coal, iron, cotton, food-stuffs, everything in turn—and petroleum was not exempt from the inevitable fluctuations of trade. But because of a little temporary depression, capitalists and business men did not abandon industries and sit down in despair. They took the opportunity to clear up affairs which had been neglected in busier times, and complacently awaited the inevitable revival. That was what they had got to do; replenish their coffers, develop their properties whilst other people were shutting down from shortness of cash, and be first in the field with a heavy production when the revival came. At the present time their production was so low that the difference of a few copecs per pood was almost a matter of indifference to the company. But though oil was now low, and might even go lower still, it was not going to remain low for ever, and what they wanted was to bestir themselves on new boring and ensure a big production in anticipation of the inevitable recovery in price. The only other topic he wished to touch upon was the prevailing misconception in certain quarters as to the future relationship between Baku and the reputed oil field at Maikop. A good deal of nonsense—some of it obviously inspired—had been talked about the rivalry between Baku and Maikop for the export trade in Russian oil. They would know for themselves that all such talk was nonsense when he told them that practically no such trade existed. The exports of Russian oil were not 5 per cent. of the whole production of the country. The fact was that Baku's export trade was so small that if it lost the lot it would make no appreciable difference to the industry as a whole. If the future was to see any appreciable export trade in Russian oil, that trade must be created by Maikop, and Maikop would deserve its monopoly and be welcome to it for all the harm it will do to them. The truth was, there was ample room for both in their respective spheres, and neither need fear the rivalry of the other. Baku could, of course, compete with Maikop in the export trade after a fashion, but at a great disadvantage in the matter of railway and pipe line freights. It might do Maikop some harm, but could do itself no good. Maikop, on the other hand, even if it were a producing oil field to-day, could not directly compete with Baku on any terms whatever. Baku's trade consisted in the sale of crude naphtha to local refiners and shippers who distributed most of it in the shape of liquid fuel in the interior markets of Russia, Persia and the East.

In that trade Baku's position was secure, just as Maikop's would be in the export trade, if such a trade sprang up. That was the sum and substance of the whole position, and it was just as well that Baku and Maikop shareholders alike should know it Personally, he had nothing to say against Maikop. He wished it luck. It was quite conceivable that this company itself might eventually see fit to enter the Maikop field, but merely on the principle of having two strings to its bow, and without any disparagement to Baku. Even if Maikop fulfilled the most sanguine hopes of its pioneers (which he hoped it would) its success could only have a sentimetal influence on the Baku oil market. There could never be any serious rivalry between the two fields. In the meanwhile, the shareholders in this company could rest quite satisfied with the splendid plots they possessed at Baku, which many of the Maikop companies might envy them at no distant date. No; if these two fields had nothing more to fear than their rivalry of each other, they had not much trouble in store. In conclusion, he remarked that no time would be lost in carrying the reconstruction scheme through its final stages. The new company would be registered in about a week's time, and, as subscriptions were already guaranteed for all the capital they needed, the directors would proceed to allotment at once. They would immediately commence the disharge of the company's liabilities, and already they had started on the preliminaries for the resumption of boring work upon their properties. Before the year was much older, they ought to be going full steam ahead. (Applause.) He might mention, incidentally, that meetings of both classes of debenture-holders had been held on the previous day, and the scheme of reconstruction unanimously approved. All the legal formalities incidental to the reconstruction were now, therefore, completed,

The resolutions were then put separately to the vote, and were unanimously agreed to.

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GERMAN RAILWAY TARIFFS AND THE AUSTRIAN PETROLEUM EXPORT.

Up to the present Austrian petroleum products had a privileged tariff on the German railways, but recently the German Railway Administration gave the Austrian exporters notice that the exclusive tariffs would cease to work at the end of three months. This measure is of exceptional importance for the Austrian petroleum products exporters, as it will greatly aggravate their position with regard to American and Russian competition. Even with the present tariffs the fight of the Americans has led to disastrous results for the Austrian exports into Germany. But with the new tariffs the position of the Austrian producers and exporters becomes much more aggravated, as can easily be understood from the following table of tariffs for transport from the Austrian refineries to Breslau and Berlin :—

Freights for Illuminating Oil, in Marks per 100 Kilogrammes, from the Refineries.

	At Boryslaw.	At Tasla.	At Dsiditza.
To Breslau—			
(1) Present tariff ..	1·42	1·50	1·54
(2) New tariff ..	1·94	2·12	2·11
Increase	0·52	0·62	0·57
To Berlin—			
(1) Present tariff ..	2·16	2·24	2·28
(2) New tariff ..	3·19	3·37	3·51
Increase	1·03	1·13	1·23

These large increases in the railway freights cannot stop the Austrian exports, as these latter have to be continued, however high the tariffs are, as a measure against overfilling the home stores and consequently reducing prices on the home market. Nevertheless they certainly will bring disastrous results for the exporters in considerably reducing their profits. Naturally the measure has met with much dissatisfaction among the Austrian producers, and they have addressed the Government with a demand for interfering, with the result that a conference of representatives of both the Austrian and German Governments will be held on the subject with every chance for the *status quo* of the present tariffs policy being maintained in the future.

AMERICAN EXPORTS FOR APRIL.

OFFICIAL STATISTICS.

According to the official publication of the Washington Bureau of Statistics, the exports of petroleum from America from the various ports during April were as under :—

	1910. Quantities. Gallons.	1909. Quantities. Gallons.
Crude—		
Baltimore	—	—
Boston and Charlestown ..	—	—
New York	3,520,877	2,732,555
Philadelphia	401,000	302,000
Galveston and Sabine ..	842,140	5,572,008
San Francisco	3,512,895	3,570,330
Totals	8,276,912	12,176,893
Total value for the month, 1909		$460,527
,, ,, ,, 1910		$308,158
Naphthas—		
Baltimore	400	505
Boston and Charlestown ..	6,066	8,050
New York	5,047,125	6,823,334
Philadelphia	2,213,592	3,572,835
Galveston and Sabine ..	—	—
San Francisco	18,405	50
Totals	7,285,588	10,404,774
Total value for the month, 1909		$805,917
,, ,, ,, 1910 ..		$531,587
Illuminating—		
Baltimore	1,153.130	3,885
Boston and Charlestown	12,827	4,000
New York	42,476,486	53,508,654
Philadelphia	23,587,665	21,975,779
Galveston and Sabine ..	4,379,291	5,424,030
San Francisco	3,825,937	4,444,978
Totals	75,435,336	85,361,326
Total value for the month, 1909		$5,776,067
,, ,, ,, 1910		$4,557,383
Lubricating—		
Baltimore	—	427,608
Boston and Charlestown ..	16,073	6,151
New York	7,213,977	8,856,492
Philadelphia	3,895,563	4,619,446
Galveston and Sabine ..	123,350	9,194
San Francisco	23,634	25,708
Totals	11,272,597	13,944,599
Total value for the month, 1909		$1,587,765
,, ,, ,, 1910		$1,459,258
Residuum—		
Baltimore	—	1,700,386
Boston and Charlestown ..	750	—
New York	4,006,450	—
Philadelphia	1,095,144	2,958,562
Galveston and Sabine ..	6,663,513	10,552,110
San Francisco	2,632	220
Totals	11,768,489	15,211,278
Total value for the month, 1909		$535,235
,, ,, ,, 1910		$368,437
Total Mineral Oils—		
Baltimore	1,153,530	2,132,384
Boston and Charlestown ..	35,716	18,201
New York	62,264,915	71,921,035
Philadelphia	31,192,964	33,428,622
Galveston and Sabine ..	12,008,294	21,557,342
San Francisco	7,383.503	8,041,286
Totals	114,038,922	137,098,870
Total value for the month, 1909		$9,165,511
,, ,, ,, 1910		$7,224,823

BORE HOLES FOR OIL
Contracted for by
JOHN M. THOM,
Canal Works,
Patricroft, MANCHESTER.
CONTRACTOR TO H.M. GOVERNMENT.

The American Oil Market.

New York, Week ended June 4th.

Further activity has marked operations in many of the Eastern petroleum fields, the week's returns indicating the greatest number of completions recorded so far this year. Fewer dusters were experienced than during the previous week, and a substantial gain is noted in new production. Of the higher grade fields of the Pennsylvania classification, West Virginia maintains the lead in development work, with experimental operations still a feature. The search for new territory has so far been attended with scant encouragement, and nearly one-half of the wells drilled in the State during the week fell into the duster list. The new production column, however, was more creditably represented than formerly. The best result in West Virginia, for the period under review, says the *Oil, Paint and Drug Reporter*, was a completion in Tyler county, which was reported to have started at the rate of 20 barrels an hour, the first day's production reaching 480 barrels. According to later advices it was holding up at 250 barrels a day. Anotner exceptional producer was credited to the Shinnston pool of Harrison county, the first 24 hours' output amounting to 375 barrels. A well with an initial production of 130 barrels was drilled in the same formation. Both completions are within the defined limits of the field and the prospects for any extension of the producing territory are no more favourable than they have been at any time since the famous pool proved the centre of interest in the high grade fields. What was regarded as a valuable discovery was reported in Cumberland county, a heavy gas pressure having been found as the result of a test considerably below the regular oil sands. The May report on Illinois operations noted 192 completions and 8,091 barrels of new production, shewing a material increase in both respects over the April returns, but the average of the new wells was lower last month, 54·30, as against 62·58 barrels. A review of the Mid-Continent field for May notes a general slump in operations, which is accounted for principally by the failure of the expected further increase in the market. The advances in the price of crude in March occasioned a material gain in field work during April. There is also an impression that operations are being retarded by the remarkable strikes of high grade oil in the Caddo field of Louisiana. In Kansas a completion of importance has been drilled in Chautauqua county. It was credited with a capacity of 200 barrels daily, the largest in the history of the field, and opens prospects for considerable new territory. California advices note a rapid increase in stocks, as a result of the heavy output, approximately 25,000,000 barrels representing the amount in storage in the valley fields. No concern is manifested over the seemingly liberal holdings of crude, as the daily consumption is placed at more than 185,000 barrels and the prospects promising for a steadily increasing outlet. Storage facilities are being fast extended throughout the fields. The Sunset-Midway field continues the scene of sensational producers, one of the late strikes being credited with flowing at the rate of 25,000 barrels a day for a short time before it sanded up. The famous Lakeview gusher is reported holding up at 35,000 barrels a day.

Refined and Products.—The feature of the local market for refined during the week has been the active outlet for export, a condition which may be explained by the presence here of more than the usual number of tank vessels. Twelve steamships of this type carried 12,675,000 gallons of refined in bulk, while two chartered steamships cleared with 5,572,210 gallons in cases, making a total of 18,247,210 gallons, the largest amount credited to the local port within one week in severa months. This brings the aggregate so far this year nearer that for the corresponding period of last year than at any other time within the interval, although the total from all ports so far this year remains considerably below that of the same period in 1909. Chartering for forward account involved 170,000 cases for China June and 170,000 cases for the Phillippines, June-July Philadelphia loading. There have been no developments affecting quotations, the market being sustained.

CLOSING QUOTATIONS.

Crude at the Wells.

The quotations for oil represented by credit balances were :—

	Week ended June 4. 1909.	Week ended June 4. 1910.
Pennsylvania	$1·68	$1·55
North Lima	0·94	0·84
South Lima	0·89	0·79
Indiana	0·89	0·79
Illinois, heavy, below 30 deg. ..	0·60	0 52
Kansas and Indian Ter., 30 deg. and above	0·41	0·38
Heavy	0·28	0·30
Humble, Tex.	0·60	0 75
Saratoga	0·58	0·75
Sour Lake, Tex.	0 62	0·77
Jennings, La.	0·54	0·54
Canadian Oil :—		
Petrolia	1·34	1·24
Oil Springs, less pipeage	1·41	1·31

Refined—For Export.

In cents.		Week ended June 4. S.W. 110 test.	W.W. 150 test.
Barrels, cargo	per gal.	7·75	@ 9·25
Philadelphia		7·75	@ 9·25
Bulk, New York		4·25	@ 5·75
Bulk, Philadelphia		4·25	@ 5·75
Cases, New York		10·15	@10·65
Cases Philadelphia		10 15	@10·65

Refined in Cases—110 Fire Test.

	Week ended May 28. 1910.	June 4. 1910.
3,000 to 10,000	10·30	10·30
1,000 to 3,000	10·35	10·35

Refined—Jobbing Lots.

In barrels, pkgs. included.

	Week ended May 28.	June 4.
130 fire test, S.W.	11¼	11¼
150 fire test, W.W.	11¾	11¾
In bulk from tanks	8½	8½

Naphtha and Gasolene.

	Week ended May 28.	June 4.
Naphtha, V. M. and P. deod. ..	12	11
Gasolene, 86 deg.	22¾	22¾

Pennsylvanian Oil Runs from May 26th to June 1st, were :—May 26th, 204,526* ; May 27th, 28th, and 29th 185,889 ; May 30th, 82,431* ; May 31st, 306.485* ; June 1st, 85,429.

The Deliveries of Pennsylvanian Oil from May 27th to June 2nd were:—May 27th, 225,076; May 28th, 29th and 30th, 496,835*; May 31st, 131,187; June 1st, 254,128*; June 2nd, 176,397.*

* Includes Illinois Oil.

Export Statistics.

The total exports from the port of New York and from the United States have been :—

	Week.	Year.	Gallons. 1909.
Refined	18,247,210	241,391,295	238,626,460
Crude	3,464,640	10,409,545	16,502,695
Naphtha	3,367,975	27,677,260	18,364,365
Residuum ..	4,542,500	10,866,900	218,970

Clearances for the Week.

During the week ended June 3rd and since Jan. 1, the clearances of petroleum, in gallons, from the port of New York, were as follows: —

From New York, week ended June 3rd ..	27,794.253
Total from New York, from Jan. 1st, 1910 ..	332,365,355
Same period last year	334,672,308
Decrease	2,306,953
From United States, week ended June 3rd	36,044,739
Total from United States, since Jan. 1st, 1910	504,932,231
Same period last year..	567,989,523
Decrease..	63,057,292

WORTHINGTON & BOLER,
LIVERPOOL, LONDON & GLASGOW.
SEE ADVERTISEMENT ON BACK COVER.

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The "Review" Shipping List.

June 17, 1910.

(*The following abbreviations are used in this table:*—L. Left; P. Passed; Arr. Arrived; Sp. Spoken; Tr. Trading.)
Anglo-American Co.'s vessels marked thus (□): the Anglo-Saxon Co.'s tankers thus (*): and Messrs. Lane and Macandrew's thus (†).

Vessel.	From	For	Latest Date and Position.
ALCHYMIST	Smyrna	Algiers	Sd. Malta, June 7
ALICE ET ISABELLE (Fr. bq.)	Havre	Tonsberg	Arr. June 2
AMERICAN	New York	Antwerp	Arr. June 12, in Port, June 14
APPALACHEE □	Barrow	New York	L. June 15
APSCHERON	Batoum & St.Louis (Rh.)	Genoa	Arr. June 15
ARAL	Marseilles	Tyne	In Port, June 14
ARAS	Sunderland	Kustendje	P. Sagres, June 13
ASHTABULA □	San Francisco	China	L. June 5
ASTRAKHAN	Tyne	Philadelphia	Arr. June 9
AUGUSTA	Brunsbuttel	Hamburg	In Port, June 14
AUREOLE	Manchester	Tyne	In Port, May 3
AZOV	Tyne	Callao	In Port, June 3
BAKU STANDARD	Cardiff	Tyne	In Port, June 14
BALAKANI†	Kustendje	Portland	P. Pera, June 9
BATOUM	Plymouth	Batoum	P. Gibraltar, June 10/11
BAYONNE	New York	Tunis	Sd. Algiers, June 4
BEACON LIGHT	Rouen	Newport	Arr. June 10, in Port, June 15
BLOOMFIELD	London & Amsterdam	Nantucket & N. Orleans	P. Beachy Head, June 15
BRILLIANT	Philadelphia	Hamburg	Arr. Jnne 6, in Port, June 14
BRILLIANT (Br. bq.)	Philadelphia	Bombay	At Philadelphia, June 8
BRITISH SUN	Galveston	Port Arthur (Texas)	Arr. June 6
BROADMAYNE	Cardiff	Kustendje	Arr. June 11
BUFFALO	Hamburg	New York	P. Scilly, June 15
BULLMOUTH*	Samboe	Sydney	Arr. about June 7
BULYSSES*	Samboe	Shanghai	L. June 9
BURGERMEISTER PETERSEN	Philadelphia	Oxelosund	P. Del. Break., June 2
BUYO MARU	Hong Kong	San Francisco	At Honolulu, May 28
CADILLAC	New York	Port Natal	Sd. St. Vincent (C.V.), May 27
CALCUTTA (B. b.) □	Yokohama	San Francisco	L. May 28
CAMILLO (Late "Joyo Maru")	Barry	New York	P. Barry Island, June 15
CAPTAIN A. F. LUCAS	New York	Tampa	48 mls. fr'm Tampa Bar, June 1
CARDIUM*	Soesoe	Europe	P. Cape Verde (Sen), June 13
CARPATHIAN†	Queenstown	Port Arthur (Texas)	L. May 31
CAUCASIAN†	Gulf Port	Port Arthur (Texas)	L. June 14
CHARLOIS	Philadelphia	Amsterdam.	In Port, June 14
CHESAPEAKE □	New York	Port Natal	Sd. St. Vincent (C.V.), June 11 for Avonmouth
CHESTER	Antwerp	Kustendje	Arr. June 11
CHEYENNE	Philadelphia	Venice	P. Del. Break., June 6
CITY OF EVERETT	Montreal	New York	In Port, June 4
CIUDAD DE REUS	New York	Valencia	L. June 4
CLAM*	Freshwater.	Tsingtau	Arr. June 9
CLEARFIELD	Rouen	Tyne	In Port, June 9
CONCH*	Singapore	Europe (via Cape)	L. June 9
CONRAD MOHR	Philadelphia	Christiana	P. Oxo, June 11
COWRIE*	Scesoe	Colombo	At Cochin, May 30
CUYAHOGA □	Bengkalis	Nordenhamn	At Bremerhaven, June 12
CYMBELINE	London	Newport	In Port, June 15
CZAR NICOLAI II.	Hamburg	Batoum	P. Gibraltar, June 12/13
DAGHESTAN	Tyne	Philadelphia	Arr. June 15
DAKOTAH □	Itosaki	San Francisco	L. May 29
DANUBIAN†	Port Arthur (Texas)	London	P. Newport News, June 7
DELAWARE □	Barry	Philadelphia	P. Fastnet, June 12
DERBENT	Batoum	Hamburg	P. Constant'ple, June 12
DEUTSCHLAND	Philadelphia	Rotterdam	L. June 11
DIAMANT	Rotterdam	Philadelphia	P. Lizard, June 9
EDWARD DAWSON	Liverpool	Cienfuegos	L. June 9
EL LOBO	San Francisco	Payta	Arr. Mav 11 & Sd. May 13, Lobos
ELAX*	Freshwater.	Kobe	Sd. Yokohama, June 9
ELISE MARIE	Philadelphia	Hamburg	In Port, June 14
ENERGIE	New York	Lisbon	L. June 2
ERIVAN	St. Louis (Rh.)	Batoum	Arr. June 14
EUPLECTELA*	Suez	Aroe Bay	Sd. Aden, June 5
EXCELSIOR	New York	Flushing	L. June 7
FRANCE MARIE (French bq.)	Santander	Marseilles	In Port, June 14
GEESTEMUNDE	Philadelphia	Swinemunde	L. June 10
GENESSE □	New York	Rouen	P. Havre, June 14
GEORGIAN PRINCE	Vallo	Tyne	In Port, June 14
GOLDMOUTH*	Soesoe	Singapore	Arr. June 9
GUTHEIL	Philadelphia	Cuba	L. June 10
H. C. HENRY	Astoria	Guaymas	Arr. May 24
HAINAUT (Du. sh.)	Antwerp	New York	Arr. June 14
HARRY WADSWORTH	Belfast	Hull	Arr. June 11, in Port, June 15
HELIOS	Philadelphia	Hamburg	P. Scilly, June 15
HERMIONE	Newcastle (N.S.W.)	Balekpappan	L. June 9
HESPERUS	New York	Rotterdam	P. Scilly, June 15
HOTHAM NEWTON	Hull	Batoum	P. Gibraltar, June 13/14
HYRCANIA	Manchester	Batoum	P. Gibraltar, June 14/15
IOANNIS COUTZIS	Blyth	Piræus	P. Oitavos, June 2
IROQUOIS □ (towing barge Navahoe)	London	New York	At Gravesend, June 16
J. A. CHANSLOR	San Francisco	Tyee (Alaska)	Arr. May 28
J. B. AUG. KESSLER	Alexandria	Aroe Bay	P. Perim, June 13
JAMES BRAND	Portland (Dorset)	Tyne	In Port, June 14
JULES HENRI (French bq.)	New York	Marseilles	L. May 27
KIYO MARU	Arica	Hong Kong	L. May 4
KURA	Penarth	Kustendje	L. June 11
LA CAMPINE	Batoum	Antwerp	P. Gibraltar, June 14/15
LA FLANDRE	Ghent	Antwerp	Arr. June 6, in Port, June 14
LA HESBAYE	Antwerp	Philadelphia	Off the Wight, June 5
LACKAWANNA □	Philadelphia	Liverpool	L. June 7
LE COQ†	New York	Havre	Arr. Havre Rds., June 13
LOUTSCH	Petersburg	Riga	Arr. June 3
LUCERNA	Brunsbuttel	Tyne	Arr. June 10, in Port, June 14
LUCIGEN	Trial Trip	Tyne	In Port, June 14, laid up
LUCILINE†	Kustendje	Havre	L. June 13
LUMEN	Rouen	Tyne	In Port, June 14
LUTETIAN†	Novorossisk	Havre & Tyne	Arr. Havre Rds., June 15
LUX†	New York	Santander	L. June 15
MANHATTAN	Tunis	New York	In Port, June 4
MANNHEIM	New York	Copenhagen	L. June 8
MARGARETHA	Genoa	Philadelphia	P. Gibraltar, June 5
METEOR	Antwerp	Novorossisk	Arr. June 9
MEXICAN PRINCE	Thameshaven	Tyne	Arr. June 5, in Port, June 14
MINA BREA	Caleta Buena	Callao	In Port, Mar. 29
MINHLA	Rangoon	Akyab	L. May 28
MIRA	Calais	Blyth	In Port, June 14, laid up
MUREX*	Aroe Bay	Singapore	Arr. June 11

Vessel.	From.	For.	Latest Date and Position.
NARRAGANSETT	London	New York	Arr. June 13
NEW YORK □	New York	Rotterdam	In Port, June 14
NIAGARA	New York	Hankow	Arr. Port Natal about June 14
OBERON	San Francisco	Ancon	Sd. P. San Luis, May 31
OCEAN	Antwerp	Rotterdam	In Port, June 14
OILFIELD	Rouen	Tyne	In Port, June 14
ORIFLAMME†	Malta	Rouen	L. June 14
OTTAWA □	Newport N'ws	—	P. Sand Key, June 7
OURAL	Dunkirk	Batoum	Off Ushant, June 13
PATELLA*	Singapore	New Orleans	L. June 3
PAUL PAIX	Tees	U.S.A.	P. Dunnet Head, June 1
PAULA	New York	Danzig	P Dunnet Head, June 12
PECTAN	San Francisco	Taltal	Arr. May 30
PENNOIL	Rotterdam	Philadelphia	P. Scilly, June 13
PETROLEINE	Blaye	Philadelphia	Sd. Dartmouth, June 7
PETROLEUM	—	—	Engaged on Government business
PHOEBUS	Hamburg	New York	P. Lizard, June 6
PINNA†	New York	London	Arr. June 15
POTOMAC □	New Orleans	Barcelona & Genoa	Sd. Norfolk (Va.), May 14
PROMETHEUS	Hamburg	New York	P. Beachy Head, June 9
PRUDENTIA	Hull	New Orleans	Arr. June 7
PURELIGHT	Hamburg & Tyne	Philadelphia	P. Dunnet Head, June 5
QUEVILLY (Fr. bq.)	Rouen	Havre	In Port, June 14
RENDOVA (Br. bq.)	Sydney	Liverpool	L. May 2
RION	Batoum	London	P. Sagres, June 15
ROCK LIGHT†	Braila	London	Arr. Beckton, June 14
ROMANY*	Barrow	Tyne	In Port, June 14
ROTTERDAM	Rotterdam	New York	P. Scilly, June 13
ROUMANIAN†	Newport Nws	Antwerp	Arr. June 15
RUSSIAN PRINCE	Tyne	Ibrail	P. Gibraltar, June 10
SALAHADJI*	Hong Kong	Sarakan	L. June 4
SAN ANTONIO	Philadelphia	London	In Port, June 15
SAN IGNACIO DE LOYOLA (Sp. bq.)	Pasages	New York	L. May 9
SANTA MARIA	Kahului	P. San Luis	Arr. May 17
SANTA RITA	Honolulu	P. San Luis	L. May 25
SARANAC □	Singapore	U.K. or Cont.	L. June 5
SAXOLEINE	Tyne	New York	P. Dunnet Head, June 14
SEMINOLE □	San Francisco	Yokohama	Arr. about June 8
SERVIAN†	Tyne	Port Arthur (Texas)	L. June 16
SIRIUS (Ger.)	Cuxhaven	New York	Arr. June 11
SNOWFLAKE	Philadelphia	Rouen	P. Del. Break., June 2
SOYO MARU	Kustendje	Yokohama	Sd. Port Tewfik, June 4
SPONDILUS*	Samboe	Europe	P. Cape Point, about June 14
STANDARD	Stettin & Tyne	Philadelphia	P. Dunnet Head, June 8
STROMBUS*	Rotterdam	Tyne	Arr. June 8, in Port, June 14
SULTAN VAN LANGKAT*	Balekpappan	Calcutta	Sd. Samboe, June 8
SUNLIGHT (Br. bq.)	Boston	Macoris	Arr. May 23
SURAM	Tyne	Kustendje	P. Dover, June 15
SUWANEE □	New York	Tampico	P. Sand Key, June 6
SVIET	Alexandria	Batoum	Cld. Constant'ple, June 8
TAMARAC □	London	Tyne	Arr. May 26
TELENA*	Philadelphia	Madras & Calcutta	Sd. Algiers, June 10
TEREK†	Sunderland	Batoum	L. June 9
TIFLIS	Tyne	Batoum	L. June 14
TIOGA □	Kustendje	London	Arr. June 9, in Port, June 15
TONAWANDA □	New York & Liverpool	Manchester	P. Fastnet, June 15
TRINCULO	Panama	San Francisco	Arr. June 5, in Port, June 8
TROCAS*	Hamburg	—	Sd. Portland, June 14
TUSCARORA	San Francisco	Shanghai	Arr. about June 13
VEDRA	Batoum & London	Antwerp	At Thameshaven, June 15
VILLE DE DIEPPE (Nor. bq.)	Liverpool	Manchester	In Port, June 15
VOLUTE*	Palembang	Balekpappan	L. June 10
WASHINGTON	Taku	Singapore	Arr. June 10
WEEHAWKEN	London	Sunderland	Arr. June 14
WILLKOMMEN	Philadelphia	Stockholm	P. Scaw, June 10
WINNEBAGO	Calcutta	San Francisco	In Port, June 2

Latest Market Intelligence.

LONDON OIL MARKET.

Supplied by Messrs. Benjamin & Gee, 31, St. Mary Axe, E.C.

June 17th, 1910.

There are still no alterations to report in the price of Refined Petroleum, prices remaining as follows:—Russian, 5¾d.; Roumanian, 7d.; American, 6d.-6¼d.; Water White, 7d.-7¼d.

LUBRICATING OILS

are unaltered:—

American pale, £6 10s. to £9 10s.
American dark cylinder, from £7 12s. 6d.
American filtered cylinder, from £10 12s. 6d.
No. 1 Russian, for Spot, £8.

TURPENTINE.

American Turpentine has been very firm lately, and is now quoted for Spot 44s. 3d.; July-December, 43s. 3d.; and January-April, 44s. 3d. It is reported that the crop is a very short one, hence the increase in price.

LIVERPOOL OIL MARKET.

June 17th.

Refined oils are quiet, and sellers quote 6d., for Russian, Galician or Roumanian; and 6½d. to 7d. per gallon for American.

LATEST AMERICAN PRICES.

New York, June 16th.

Refined, in cases, is steady at 10·05; Standard White, 7·65; Credit balances, 1·30.

Philadelphia, June 16th.

Standard White is now quoted at 7·65.

GERMANY.

Hamburg, June 15th.

The petroleum market is without any change. American, ·800–6·30 marks; Pennsylvanian, 6·40 marks; Galician, 6·30 marks. Russian and Roumanian not on the market.

RUSSIA. Baku, June 14th.

The market is without change. Crude oil is quoted at 14½-15 copecs per pood spot. Mazout 15-15½ copecs.

BELGIUM.

Antwerp, June 15th.

The petroleum market is without change. Price of Standard White, spot, 20·50 francs per 100 kilos.

ROUMANIA. June 15th.

	Francs.
Crude oil from different fields, including pipe line charges, per 100 kgs.	3·40–3·50
Refined oil, exclusive of taxes, ex. refinery	8·10
Residuals in tank waggons, at refinery	3·50–3·60
Paraffin	110–120
Prices for Export.	
Refined oil, f.o.b., per 100 kgs.	5·25–5·50
Benzine, sp. gr. 0·710–0·715, f.o.b.	16–17
" sp. gr. 0·715–0·720 "	14·50–15·50
" sp. gr. 0·730–0·740 "	10–11
" sp. gr. 0·745–0.755 "	9–10
Lubricating, horticultural	33
" prime	36
" extra	42
" Royal, "Steaua Romana"	46
Imperial "Aurora"	46
Vacuum-Ideal "Vega"	52

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IMPORTS of PETROLEUM into UNITED KINGDOM

Specially prepared for this Journal by the Custom House.

FOR THE WEEK ENDED JUNE 6TH, 1910—

Date.	Port and Importers.	Description.	No. of Gals.	Port Whence.
May	LONDON—			
31	Fielder, Hickman and Co...	Lub.	5,040	New York
31	Grindley and Co	,,	6,000	,,
31	W. H. J. Alexander ..	,,	2,670	,,
31	Anglo-American Oil Co.	,,	4,000	,,
31	Mercantile Lighterage Co...	,,	56,250	,,
31	Port of London Authority..	,,	490	Marseilles
June				
1	,, ...	,,	1,100	Hamburg
1	,, ...	,,	120	Riga
2	,, ...	,,	2,800	Hamburg
2	Snowdon, Sons and Co. ..	,,	1,240	,,
2	Juett and Cain	,,	1,000	,,
2	Mordaunt Bros.	Lamp	9,780	,,
2	Produce Brokers' Co. ..	Lub.	2,400	Antwerp
2	Page, Son and East ..	Lub. Gr.	160	,,
2	R. Park and Co.	Lub	1,200	Marseilles
3	Schleiman's Oil Co. ..	Lub. Gr.	3,250	Hamburg
4	J. Spurling	,,	240	New York
6	Scott's Wharf	Lub.	2 000	,,
6	Anglo-American Oil Co. ..	,,	2,000	,,
6	Produce Brokers' Co. ..	,,	19,400	,,
6	Mordaunt Bros.	,,	8,650	,,
6	T. H. Lee	,,	80	Hamburg
6	Argo Steamship Co. ..	,,	80	Bremen
6	J. Harrison	Lub. Gr.	140	Antwerp
6	Page, Son and East ..	Lub.	120	,,
6	British and Foreign Wharf.	,,	940	,,
May	LIVERPOOL—			
31	J. Light and Son	Lub Gr.	400	New York
31	Vacuum Oil Co.	Lub.	5,400	,,
31	G. B. Taylor	,,	15,560	,,
31	Vacuum Oil Co.	,,	2,800	,,
31	J. T. Fletcher and Co. ..	,,	390	Antwerp
June				
1	Cunard Steamship Co. ..	,,	120	Fiume
1	W. H. Samuel and Co. ..	,,	1,000	New York
1	Liverpool Storage Co. ..	,,	800	,,
2	G. B. Taylor	,,	30,200	,,
2	Stockdale and Doel ..	,,	6,840	Boston
3	W. B. Dick and Co ..	,,	10,140	Baltimore
3	A. Hopps and Sons.. ..	,,	19,070	,,
3	Pickfords, Ltd.	Lub. Oil and Paste	210	Hamburg
3	Crew, Levick and Co. ..	Lub.	2,040	,,
4	J. L. Turnbull and Co. ..	,,	1,000	Boston
6	Valvoline Oil Co.	,,	1,230	New York
6	A. Hopps and Sons.. ..	L. Resid.	5,410	Montreal
6	Crew, Levick and Co. ..	,,	10,380	,,
6	C. C. Wakefield	Lub. Gr.	450	Antwerp
May	BRISTOL—			
31	First Anglo-Russian Oil Co.	Lub. Gr.	560	Antwerp
31	O. Pragnell and Co ..	Lub.	110	,,
June				
2	W. G. Clarke	Lub.	360	Antwerp
4	Pickfords, Ltd.	,,	200	Hamburg
6	Anglo-Bosphorus Oil Co. ..	,,	300	,,
6	C. Hill and Sons	,,	36,320	New York
6	Anglo-Bosphorus Oil Co. ..	Lub. Gr.	150	,,
6	Ford and Canning	Lub.	2,560	,,
6	,, ..	Lub. Gr.	460	,,
6	J. and R. Bush	Lub	64,520	,,
May	HARWICH—			
31	Great Eastern Railway ..	,,	260	Antwerp
May	HARTLEPOOL—			
31	W. Hartlepool S.N. Co. ..	Lamp	840	Hamburg
May	HULL—			
31	T. Wilson Sons and Co. ..	Lub.	80	Christ'nsund.
31	Wilsons and N.E. Co. ..	,,	2,480	Hamburg
June				
2	,, ..	,,	240	Antwerp
2	,, ..	,,	840	Hamburg
2	,, ..	,,	1,120	Antwerp
2	T. Wilson, Sons and Co. ..	,,	5,800	New York
May	MANCHESTER—			
31	Liverpool Storage Co. ..	Lub. Oil and Gr.	11,890	,,
June				
1	C. H. Morton and Son ..	Lub.	2,600	Philadel.
1	J. T. Fletcher and Co. ..	,,	480	Antwerp
2	Crew, Levick and Co. ..	,,	11,650	Philadel.
2	,, ..	M. Colza	3,110	,,
2	Liverpool Storage Co. ..	Lub.	13,950	,,
2	Meade-King, Robinson & Co.	M. Colza	5,200	,,
2	,, ,, ..	Lub.	2,600	,,
2	G. B. Taylor	,,	80,240	,,
6	Homelight Oil Co. (Hyrcania)	Lamp	1,050,000	Batoum
6	British Pet. Co. (Kura) ..	,,	886,000	Kustendje
	PLYMOUTH—			
1	Anglo-American Oil Co. (Delaware)	,,	1,300,180	New York
	DUNDEE—			
2	D. Alexander and Sons ..	Lub.	120	Hamburg
	GLASGOW—			
1	Clyde Shipping Co. ..	,,	450	Antwerp
1	Allan Bros. and Co... ..	,,	33,830	Philadel.
2	Anchor Line	,,	71,480	New York
6	,, ..	,,	37,480	,,
May	LEITH—			
31	G. Gibson and Co.	,,	40	Antwerp
June				
2	,, ..	,,	2,000	,,
2	,, ..	,,	300	,,
2	W. G. Yooll and Co. ..	Lamp	2,180	Hamburg
2	J. Currie and Co.	Lub.	200	,,
3	,, ..	,,	550	,,

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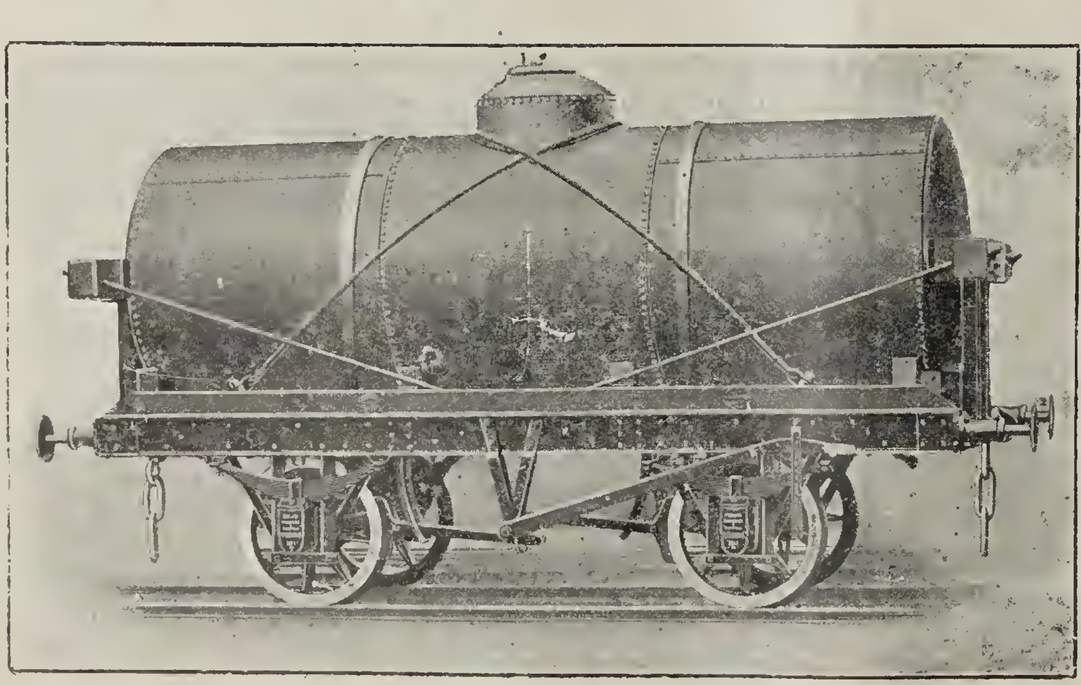

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IMPORTS.—(*Concluded*).

Date. June	Port and Importers	Description.	No. of Galls.	Port Whence.
	LEITH—			
3	Henderson and McIntosh	Lub.	34,600	Philadel.
6	J. Currie and Co.	,,	240	Bremen
6	,,	,,	120	Copenhagen
	BELFAST—			
4	Corporation Gas Co. (Harry Wadsworth)	Gas	934,600	Pt. Arthur
May	CORK—			
31	Palgrave, Murphy and Co.	Lub.	200	Hamburg
	DUBLIN—			
31	Palgrave, Murphy and Co.		520	,,
			4,848,600	
	Deduct to correct—			
	LONDON—			
24/5	British and Foreign Wharf	Lub.	2,950	Antwerp
			4,845,650	
	Add to correct—			
	GRANGEMOUTH—			
31/5	W. Graham-Yooll and Co.	Lamp	1,000	Hamburg
1/6	,,	,,	1,000	,,
1/6	J. Currie and Co.	Lub. Oil and Paste	1,220	,,
	Total for the Week		4,848,870	

FOR THE WEEK ENDED 13TH JUNE, 1910—

Date. June	Port and Importers	Description.	No. of Galls.	Port Whence.
	LONDON—			
7	Schlieman's Oil Co.	Lub. Oil and Gr.	2,640	Hamburg
7	Port of London Authority	Lub.	3,840	,,
7	C. Shaw Lovell and Sons	,,	840	,,
7	Fielder, Hickman and Co.	,,	10,280	New York
7	Anglo-American Oil Co. (Tioga)	Fuel	704,830	Kustendje
8	British Pet. Co. (Rocklight)	,,	306,000	,,
8	,, ,,	Gas	723,000	,,
8	Mordaunt Bros.	Lamp	9,500	Hamburg
8	Anglo-American Oil Co.	Lub.	17,240	New York
8	,,	,,	52,000	,,
8	B. Jacobs and Sons	,,	6,170	,,
9	Port of London Authority		1,720	,,
9	Vacuum Oil Co.	,,	11,840	,,
9	British and Foreign Wharf	,,	480	Antwerp
9	Page, Son and East	Lub. Oil and Gr.	120	,,
9	Port of London Authority	Lub.	1,280	Hamburg
9	R. Park and Co.	,,	620	Marseilles
10	J. Harrison, Ltd.	,,	130	Antwerp
10	United Shipping Co.	,,	360	Riga
10	Lub. and Fuel Oils Co. (Vedra)	,,	915,080	Batoum
10	T. H. Lee	Lub. Gr.	470	Hamburg
10	Union Lighterage Co.	Lub.	2,400	Antwerp
10	Mercantile Lighterage Co.	,,	36,510	New York
11	,,	,,	200	,,
11	Anglo-American Oil Co.	,,	28,360	,,
11	,, (Navahoe)	Lamp	1,505,720	,,
11	,, (Iroquois)	,,	2,086,680	,,
11	,, ,,	Gas	338,060	,,
11	,, (Pinna)	,,	2,053,910	,,
11	British Pet. Co.	Lub.	2,000	Antwerp
11	Produce Brokers' Co.	,,	5,200	Baltimore
13	J. Harrison, Ltd.	Lub. Gr.	1,740	Antwerp
13	Page, Son and East	Lub. Oil and Gr.	440	,,
13	T. H. Lee	Lub.Gr.	810	Hamburg
	LIVERPOOL—			
7	Meade-King, Robinson & Co.	Lub.	20,800	,,
7	Sievwright Bacon and Co.	,,	250	,,
7	Pickford's, Ltd.	Lub. Oil and Gr.	90	,,
7	Liverpool Warehousing Co.	Lub. Gr.	160	,,
7	Worthington and Boler	,,	200	Philadel.
7	,,	Lub.	5,240	,,
7	Bowring Petroleum Co.	,,	4,290	,,
7	W. B. Dick and Co.	,,	30,670	New York
7	G. B. Taylor	,,	45,800	,,
7	Vacuum Oil Co.	,,	1,200	,,
7	Ismay, Imrie and Co.	,,	920	,,
8	Cunard Steamship Co.	L.Resid.	12,000	Trieste
8	W. Gibson and Sons	Lub.	2,050	Boston
9	Meade-King, Robinson & Co.	,,	28,960	Philadel.
9	Vacuum Oil Co.	,,	37,200	,,
9	Midland Railway	,,	2,150	,,
9	Bowring Petroleum Co.	,,	1,240	,,
June				
9	W. B. Dick and Co.	Lub.	20,550	Philadel.
10	George B. Taylor	,,	17,600	,,
10	Crew, Levick and Co.	,,	34,150	,,
10	,,	M. Colza	5,100	,,
10	American Line	Lub.	16,320	,,
11	Bramwell, Fern and Co.	,,	2,480	,,
11	D. Owen and Sons	,,	2,030	Stettin
13	Ismay, Imrie and Co.	,,	120	New York
13	Valvoline Oil Co.	,,	5,740	,,
13	Pickfords, Ltd.	Lub. Oil and Gr.	430	Hamburg
13	J. T. Fletcher and Co.	Lub. Gr.	40	Antwerp
13	C. W. Field and Co.	Lub.	210	,,
	BARROW—			
10	Anglo-American Oil Co. (Appalachee)	Lamp	694,480	Philadel.
8	Pickfords, Ltd.	Lub.	150	Hamburg
5	C. Harding	,,	1,290	New York
31/5	Homelight Oil Co. (Hyrcania)	Lamp	833,000	Batoum
11	H. Matthews and Co.	Lub.	480	Antwerp
11	W. G. Clarke	M.Colza	1,250	,,
	CARDIFF—			
7	Bristol S. Navigation Co.	Lub.	1,000	Hamburg
	HULL—			
7	T. Wilson, Sons and Co.	,,	120	Christiania
7	,,	,,	4,000	Trieste
7	Wilsons and N.E. Co.	,,	3,600	Hamburg
9	,,	,,	480	,,
9	,,	,,	800	Antwerp
11	,,	,,	3,480	,,
11	W. Gilyott and Co.	,,	70,520	New York
	MANCHESTER—			
8	J. T. Fletcher and Co.	,,	480	Antwerp
9	D. Currie and Co.	Lub. Gr.	720	Hamburg
11	Meade-King, Robinson & Co.	Lub.	10,400	,,
13	Pickford's	,,	140	,,
13	D. Currie and Co.	,,	2,400	,,
10	M. Wells and Co.	,,	2,600	Galveston
10	Lamport and Holt	,,	810	New York
10	Meade-King, Robinson & Co.	,,	2,600	,,
13	Liverpool Warehousing Co.	,,	9,510	,,
13	Bramwell, Fern and Co.	,,	1,700	,,
13	W. Hodgson and Co.	,,	1,920	Riga
13	George B. Taylor	,,	88,840	New York
	NEWCASTLE—			
7	Tyne Tees Steamship Co.	,,	480	Hamburg
	ABERDEEN—			
9	J. Cook and Son	,,	1,600	Riga
	DUNDEE—			
9	A. Gray	Lamp	380	Hamburg
	GLASGOW—			
7	Clyde Shipping Co.	Lub.	200	Antwerp
13	Anchor Line	,,	7,760	New York
	GRANGEMOUTH—			
8	J. Currie and Co.	,,	1,200	Hamburg
8	W. G. Yooll and Co.	Lamp	1,000	,,
	LEITH—			
9	W. Graham-Yooll and Co.	,,	2,140	,,
11	J. Currie and Co.	Lub.	160	,,
	BELFAST—			
9	J. C. Pinkerton and Co.	Lub. Gr.	50	,,
11	Anglo-American Oil Co. (Potomac)	Lamp	1,306,740	New York
	DUBLIN—			
8	Anglo-American Oil Co. (Camillo)	,,	1,920,240	,,
8	Palgrave, Murphy and Co.	Lub.	40	Hamburg
			14,107,220	
	Deduct to correct—			
	LONDON—			
3/5	Lubricating & Fuel Oils Co. (Daghestan)	Lub.	10,900	,,
	Total for the Week		14,096,320	
	Total for the Fortnight		18,945,190	

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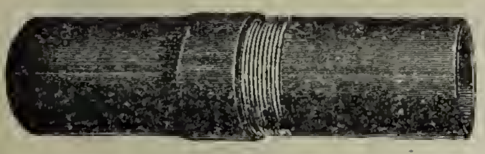

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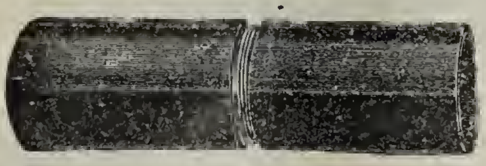

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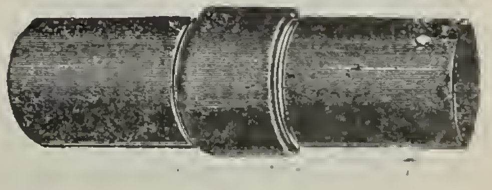

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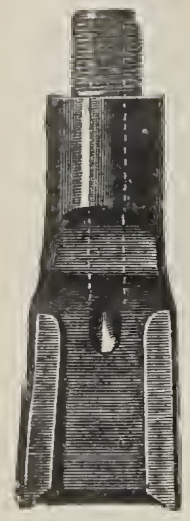

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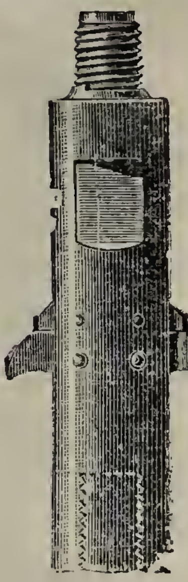

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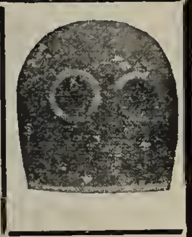

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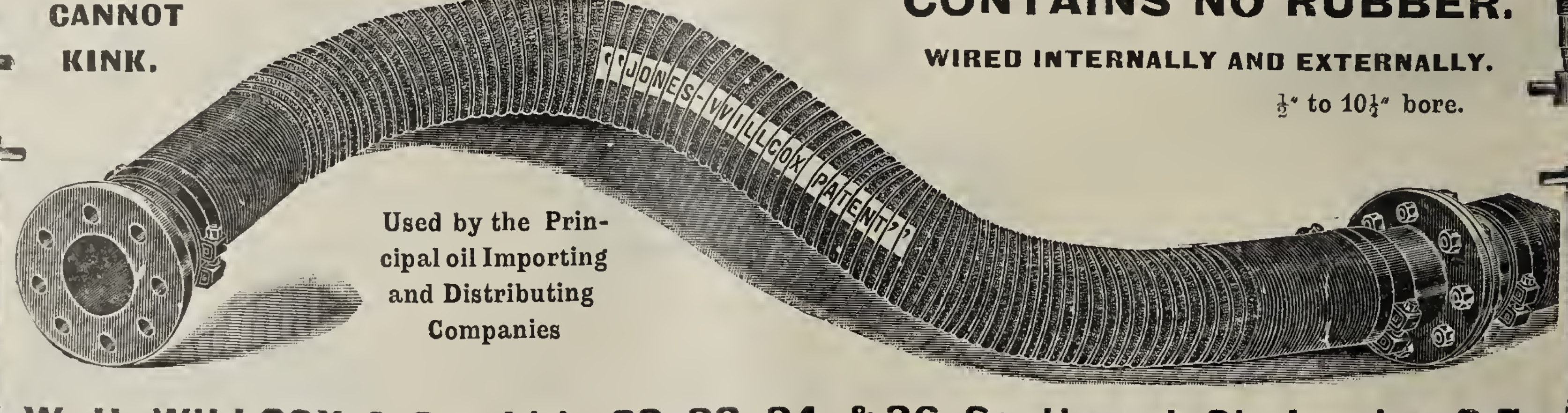
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